New York ISO
Independent System Operator

Manual 4

Installed Capacity Manual

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4. Installed Capacity Requirements Applicable to Installed Capacity Suppliers

4.1. Overview

Resources must follow certain procedures and provide pertinent information to the NYISO on or before a specified date and time in order to qualify as Installed Capacity Suppliers. The requirements necessary to qualify as an Installed Capacity Supplier can be found in Sections 4.2 and 4.3 below, and include Dependable Maximum Net Capability (DMNC) and for BTM:NG Resources Dependable Maximum Gross Capability (DMGC) testing and maintenance schedule reporting.

After completing the procedures listed above, Resources that have qualified as Installed Capacity Suppliers must fulfill certain additional requirements provided by the NYISO in order to retain all of the privileges to which an Installed Capacity Supplier is entitled. These requirements are provided in detail in Sections 4.4 through 4.8 below. The requirements include reporting Operating Data; planned or scheduled maintenance and forced outage notification requirements; the Installed Capacity certification requirements; and bidding, scheduling, and notification responsibilities.

Certain Installed Capacity Suppliers must fulfill alternative or additional requirements provided by the NYISO in addition to or in place of the requirements found in Sections 4.2 through 4.8. These alternative or additional requirements can be found in Sections 4.9 through 4.13. Each of these sections addresses a different individual Resource.

Installed Capacity Suppliers that fail to fulfill the requirements detailed in Sections 4.2 through 4.13 are subject to sanctions, as provided in Section 5.12.12 of the *NYISO Services Tariff* (available from the NYISO Web site at the following URL: https://www.nyiso.com/regulatory-viewer).

Section 4.14 details the procedures for requesting, granting and applying UDRs and EDRs.

Resources may be physically located in the NYCA, or in an External Control Area that meets the recall and Curtailment requirements and the locational limitations specified in Section 2.7 of this *ICAP Manual*.

4.1.1 Energy Duration Limitations and Duration Adjustment Factors for Installed Capacity Suppliers

Starting with the Capability Year that begins on May 1, 2021, Resources with a limited run-time that meet the Energy Duration Limitations identified in Section 5.12.14 of the *NYISO Services Tariff* may qualify to participate as Installed Capacity Suppliers. Energy Duration Limitations and corresponding Duration Adjustment Factors for Resources with Energy Duration Limitations identified in the tables below are

applicable through the Capability Year beginning May 1, 2023, based upon the incremental penetration (CRIS MW and SCR ICAP Value for July, as appropriate) of Resources with Energy Duration Limitations.

Incremental Penetration of Resources with Energy Duration Limitations is less than 1000 MW	
Energy Duration Limitations (hours)	Duration Adjustment Factors (%)
8	100
6	100
4	90
2	45

Incremental Penetration of Resources with Energy Duration Limitations 1000 MW and above	
Energy Duration Limitations (hours)	Duration Adjustment Factors (%)
8	100
6	90
4	75
2	37.5

Installed Capacity Suppliers with an Energy Duration Limitation must comply with the applicable Peak Load Window availability requirements pursuant to section 5.12.7 of the *NYISO Services Tariff* and Section 4.8.1 of this *ICAP Manual*, including when the ISO shifts the Peak Load Window for a given day. The 6 and 8-hour Peak Load Windows that are normally in effect are defined below through the Capability Year beginning May 1, 2023.

6-hour Peak Load Window	
Summer Capability Period	Winter Capability Period
HB 13 through HB 18	HB 16 through HB 21

8-hour Peak Load Window

Summer Capability Period	Winter Capability Period
HB 12 through HB 19	HB 14 through HB 21

Starting with the Capability Year that begins May 1, 2024, Resources with a limited daily run-time less than 24 hours may qualify to participate as Installed Capacity Suppliers in accordance with Section 5.12.14 of the NYISO Services Tariff. Resources may elect from the table below an hourly Energy Duration Limitation that is less than or equal to the resource's ability to demonstrate sustained output at its qualified MW amount.

Energy Duration Limitations (hours)
8
6
4
2

Installed Capacity Suppliers with an Energy Duration Limitation must comply with the applicable Peak Load Window availability requirements pursuant to section 5.12.7 of the NYISO Services Tariff and Section 4.8.1 of this ICAP Manual, including when the ISO shifts the Peak Load Window for a given day.

The Peak Load Window for each Capability Period will be available on the NYISO Installed Capacity Market web page (https://www.nyiso.com/installed-capacity-market) and determined through the annual process detailed in Section 7.3 of this ICAP Manual.

The ISO has the authority to shift the Peak Load Window for Installed Capacity Suppliers with an Energy Duration Limitation. Shifting the Peak Load Window that applies to Installed Capacity Suppliers with Energy Duration Limitations does not modify the Peak Load Window length. The ISO anticipates it will exercise this authority when necessary to support reliable grid operations. The ISO will evaluate factors including but not limited to load levels, system conditions, topology, and weather in its determination of whether or not to shift the Peak Load Window for Installed Capacity Suppliers with an Energy Duration Limitation. In the event that ISO shifts the Peak Load Window for Installed Capacity Suppliers with an Energy Duration Limitation for a given day, the ISO will publish an alert to the NYISO Market & Operations web page at least four (4) hours before the close of the DAM, specifically on the System Conditions page (https://www.nyiso.com/system-conditions), which is also available in the Real Time Events data (http://mis.nyiso.com/public/). This alert serves as NYISO's instruction to shift the bidding window for Installed Capacity Suppliers with an Energy Duration Limitation for a given day. An email will also be sent to the appropriate contact for each Installed Capacity Supplier with an Energy Duration Limitation provided in the NYISO Market Information System (MIS).

Installed Capacity Suppliers with a limited run-time must elect an Energy Duration Limitation and inform the ISO by August 1, as specified in the ICAP Event Calendar, preceding a Capability Year. If an election is received by the NYISO after August 1, as specified in the ICAP Event Calendar, the election will not be effective.

A request to change an ICAP Supplier's Energy Duration Limitation must include the following information:

- Generator name and PTID
- Duration election
- Technical basis of the resource's daily run-time limitation

The request must be provided in writing and must be received via electronic mail at Customer_Registration@nyiso.com and ICAP_Info@nyiso.com.

4.1.2. Dual Participation

Effective May 1, 2020, Resources that are electrically located in the NYCA may simultaneously participate in the Installed Capacity market and in programs or markets operated to meet the needs of distribution systems located in the NYCA, or of host facilities. Resources that engage in Dual Participation, and seek to participate in the Installed Capacity market will be required to meet all the eligibility, participation, measurement, and performance rules and requirements of Installed Capacity Suppliers.

Resources that switch from a retail load modifier to NYISO wholesale market participation must do so at the beginning of the Capability Year.

- Resources must notify the NYISO of this change prior to August 1 of the year preceding the Capability Year.

Resources engaged in Dual Participation that exit the NYISO wholesale market to be a load modifier on the distribution system must notify the NYISO of its intention to exit.

- If the NYISO received notification prior to August 1 of a year preceding a Capability Year, the resource's transition to a retail load modifier will be reflected in the requirements for the Transmission District.
- If the NYISO does not receive notification prior to August 1 of a year preceding a Capability Year, the resource's transition to a retail load modifier will not be reflected in the requirements for the Transmission District.

4.1.3. Provisions Applicable to Installed Capacity Suppliers that Participate as Co-located Storage Resources (CSR)

Installed Capacity Suppliers participating in NYISO markets as part of a CSR must fulfill all obligations applicable to Installed Capacity Suppliers of their respective resource type. The NYISO will treat each Installed Capacity Supplier within a CSR consistently with the rules applicable to its respective resource type (*i.e.*, the rules applicable to Energy Storage Resources and Intermittent Power Resources), with the exception of Unforced Capacity calculations, as detailed in Attachment J of this ICAP Manual.

4.2. DMNC and DMGC Procedures (Section 5.12.8 *NYISO Services Tariff*)

As specified in Section 4.2.2 below, in order for a Generator to establish a DMNC, or for BTM:NG Resources only, DMGC, rating, Installed Capacity Suppliers must submit results from a DMNC/DMGC test or data from actual operation ("DMNC/DMGC Demonstration") from within the DMNC Test Periods ("in-period") specified in Section 4.2.1 below, to the NYISO no later than the time specified in the ICAP Event Calendar. Refer to Section 4.12 of this *ICAP Manual* for additional information about requirements for Special Case Resources (SCRs). The submittal must provide the NYISO with the required documentation of the DMNC or DMGC test data or data from actual operation and be in accordance with the procedures described below (unless exempt in accordance with the provisions of Section 4.4.3 of this *ICAP Manual*). In addition, Section 5.12.8 of the *NYISO Services Tariff* (available from the NYISO Web site at the following URL: https://www.nyiso.com/regulatory-viewer) provides for submitting DMNC or DMGC test data or data from actual operation from outside the DMNC Test Period ("out-of-period") and prior to the next Capability Period. Failure to submit DMNC or DMGC test data or data from actual operation may result in financial sanctions pursuant section 5.12.12 of the *NYISO Services Tariff* (available from the NYISO Web site at the following URL: https://www.nyiso.com/regulatory-viewer).

DMNC and DMGC test data or data from actual operation that has been validated as described below constitutes a DMNC or DMGC rating for the purpose of establishing a generating Resource's Installed Capacity value. A subsequent adjustment is made pursuant to Section 4.5 and Attachment J of this *ICAP Manual* to determine each Resource's Unforced Capacity value.

DMNC and DMGC test data or data from actual operation must be complete and submitted in an acceptable format or it will be rejected. A validation and approval period starts with a determination that the data has been determined by the NYISO to be complete and in an acceptable format. Upon determination that the information that has been submitted is complete, the NYISO will validate and approve the DMNC or DMGC rating or reject it within 30 days. The NYISO will validate the DMNC and DMGC data received from Suppliers against NYISO billing information and will notify the Supplier if there is a discrepancy. Discrepancies must be resolved through the audit process described below within the 30-day

validation and approval period or the DMNC/DMGC data will be rejected. If the NYISO approves the Installed Capacity Supplier's submittal, the submitted DMNC or DMGC value will be valid for the subsequent like Capability Period, and at the request of the Installed Capacity Supplier, may also serve as the valid DMNC or DMGC rating for the balance of the current Capability Period beginning in the month following approval.

If the NYISO rejects the submitted DMNC or DMGC value, the Installed Capacity Supplier may:

a. resubmit DMNC/DMGC test results or data from actual operation from within the current DMNC Test Period, or
b. accept the NYISO determined DMNC/DMGC value and resubmit it, or
c. request an audit.

If the Installed Capacity Supplier requests an audit, the NYISO will work with the Installed Capacity Supplier to schedule the audit. If the audit results reveal that the Installed Capacity Supplier DMNC or DMGC rating is correct, the DMNC or DMGC test data or data from actual operation submitted by the Installed Capacity Supplier will remain in place. If the audit reveals that the NYISO rating is correct, the NYISO will instruct the Installed Capacity Supplier to resubmit the DMNC or DMGC test data or data from actual operation with the DMNC/DMGC rating established through the audit and the Installed Capacity Supplier will be subject to deficiency charges, if applicable.

An Installed Capacity Supplier offering to supply Unforced Capacity as a System Resource must submit DMNC/DMGC test data or data from actual operation for each Generator that it seeks to aggregate.

All generating Resources must test using usual and customary industry practices. For example, the operating configuration and fuel mix used to test must be the same configuration and fuel mix expected to be used during the summer or winter peak Load conditions, as applicable. This requirement is not meant to exclude testing based on operating configurations of Capacity Limited Resources that have been approved by the NYISO and are in compliance with this *ICAP Manual* and Attachment M hereto.

All DMNC and DMGC tests on internal combustion, combustion units and combined cycle units must be temperature adjusted. For DMNC/DMGC test results applicable to Capability Periods prior to Summer 2017, the Average Ambient Temperature to be used for the temperature adjustment is the average of the ambient temperatures recorded at the time of the Transmission District's seasonal peak during the previous four like Capability Periods (as posted at the link given here), as recorded at the nearest approved weather station or recorded on an auditable recording device at the generator site. For DMNC/DMGC test results applicable to the Summer 2017 Capability Period and beyond, the Average

Ambient Temperature to be used for the temperature adjustment is the average of the ambient temperatures recorded at the time of the Transmission District's seasonal peak during the previous four like Capability Periods if such peak occurs in June through September for Summer Capability Periods, or December through March for Winter Capability Periods (as posted at the link in this paragraph), as recorded at the nearest approved weather station or recorded on an auditable recording device at the generator site. If the Transmission District's seasonal peak occurs in April, May, October or November, the Average Ambient Temperature to be used in its place for that like Capability Period will be the next highest peak not occurring in such months. Once the decision is made where the temperature is obtained, that location may not change for future test data submittals. The dates and times of the Transmission District peak in each Capability Period are posted on the ISO website under Announcements at:

https://www.nyiso.com/installed-capacity-market

Subject to applicable interconnection and deliverability requirements, existing Resources that have increased Capacity due to changes in their generating equipment may demonstrate the DMNC/DMGC of the incremental Capacity for and within a Capability Period by following the procedures described in Section 4.2.5.

Existing Resources submitting DMNC or DMGC Demonstration results from outside the normally applicable DMNC Test Period ("out-of-period") must verify the approved "out-of-period" DMNC/DMGC rating during the next DMNC Test Period. If the supplier is unable to verify the "out-of-period" DMNC/DMGC rating in the next DMNC Test Period, then deficiency charges shall be applied at no more than the absolute difference between the Generator's Unforced Capacity based upon the previous approved in-period DMNC or DMGC test and the amount of Unforced Capacity the Generator supplied for the obligation month. The NYISO's Market Monitoring Unit will verify the DMNC and DMGC test data received from Suppliers against NYISO billing information and will notify the Supplier if there is a discrepancy. Approval will be indicated via the ICAP Market System.

DMNC data submitted for External Resources will be verified with the External Control Area in which the Resource is electrically located. DMNC data for External Resources must be in accordance with procedures as required in this Installed Capacity Manual. If External Control Area does not possess DMNC data for the Resource as required by this ICAP Manual, the Resource shall provide the NYISO with additional information upon request so that the NYISO can validate the information. External Resources must also demonstrate that the submitted DMNC MW amount of capacity is available (net of sales in other Control Areas) on a prospective basis for export to the NYISO during the proposed Capability Period. That amount of MW must be validated by the External Control Area.

4.2.1. DMNC Test Periods

Prior to the Capability Year that begins May 1, 2024, the DMNC Test Period for the Summer Capability Period is June 1st through September 15th and for the Winter Capability Period is November 1st through April 15th. Installed Capacity Suppliers with an Energy Duration Limitation must conduct their DMNC test during the applicable Peak Load Window as determined in accordance with Section 4.1.1 of this *ICAP Manual*. Pursuant to Section 2.4 of the NYISO Services Tariff, BTM:NG Resources that are required to perform a DMGC test will perform such test during the DMNC Test Periods. Installed Capacity Suppliers with an Energy Duration Limitation performing an "out-of-period" DMNC or DMGC test must submit corresponding test data or actual operation data within the Peak Load Window for the effective date's capability season. For example, a resource submitting an "out-of-period" DMNC in the winter for the summer Capability Period must perform the test within the Peak Load Window hours for the summer Capability Period as determined in accordance with Section 4.1.1 of this *ICAP Manual*, and within the "out-of-period" DMNC Test Period. All "out-of-period" DMNC/DMGC tests must be validated with an "in-period" test during the following DMNC Testing Period or deficiency penalties may apply as described in Section 5.14.2 and 5.12.8 of the *NYISO Services Tariff*.

Starting with the Capability Year that begins May 1, 2024, the DMNC Test Period for the Summer Capability Period is June 1st through September 15th and for the Winter Capability Period is November 1st through April 15th. Installed Capacity Suppliers with an Energy Duration Limitation must conduct their DMNC test during the applicable hourly window in accordance with Section 4.2.2.2 of this *ICAP Manual*. BTM:NG Resources that are required to perform a DMGC test will perform such test during the DMNC Test Periods. Installed Capacity Suppliers with an Energy Duration Limitation performing an "out-of-period" DMNC or DMGC test must submit corresponding test data or actual operation data within the hourly window for the effective date's capability season. For example, a resource submitting an "out-of-period" DMNC in the winter for the summer Capability Period must perform the test within the hourly window for the summer Capability Period in accordance with Section 4.2.2.2 of this *ICAP Manual*, and within the "out-of-period" DMNC Test Period. All "out-of-period" DMNC/DMGC Installed Capacity Manual tests must be validated with an "in-period" test during the following DMNC Testing Period or deficiency penalties may apply as described in Section 5.14.2 and 5.12.8 of the *NYISO Services Tariff*.

4.2.2. Resource Specific Test Conditions

The Resources listed below must meet the applicable DMNC test conditions specified below hereto in order to be qualified as Installed Capacity Suppliers. Resources must also report DMNC test results to the

NYISO. As used in this Section 4.2.2, DMNC shall mean the power delivered to the transmission system on a clock-hour basis (top-of-hour to top-of-hour), net of station service Load necessary to deliver that power, as described in Section 4.2.3 of this *ICAP Manual*. The resource specific test conditions of this section 4.2.2 are applicable to BTM:NG Resources performing DMGC tests.

4.2.2.1 Installed Capacity Suppliers without an Energy Duration Limitation

Fossil Fuel and Nuclear Stations

Valid DMNCs for fossil fuel or nuclear steam units are determined by the following:

a. The unit's sustained maximum net output averaged over a four (4) consecutive hour period
b. For common-header turbine-generators, the DMNC is determined on a group basis. Each such turbine-generator is assigned a rating by distributing the combined Capacity among them.
c. The sum of the DMNC of individual turbine-generators in a generating station cannot be greater than the capacity of the station taken as a whole; also the sum of the DMNC of individual turbine-generators under a single PTID cannot be greater than the DMNC of the PTID taken as a whole station. Each such turbine-generator is assigned a rating by distributing the combined Capacity among the units comprising the PTID.

Hydro Stations

Valid DMNCs for hydro units are determined by the following:

a. The sustained net output averaged over a four (4) consecutive hour period using average stream flow and/or storage conditions within machine discharge Capacity.
b. For a multi-unit hydro station, the DMNC is determined as a group and each hydro unit in such a station is assigned a rating by distributing the combined station DMNC among them.
c. The sum of the DMNC of individual units in a multi-unit hydro station cannot be greater than the capacity of the station taken as a whole; also the sum of the DMNC of individual hydro units under a single PTID cannot be greater than the DMNC of the PTID taken as a single station. Each such hydro unit is assigned a rating by distributing the combined Capacity among the units comprising the PTID.

Internal Combustion Units and Combustion Turbines

Valid DMNCs for internal combustion units and combustion turbines are determined by the following:

a. The sustained maximum net output for a one (1) hour period.
b. The unit's winter DMNC rating is determined on the basis of the average ambient and cooling system temperature experienced at the time of the Transmission District's winter peak as described in Section 4.2 of this manual.
c. The unit's summer DMNC is determined on the basis of the average ambient and cooling system temperature experienced at the time of the Transmission District's summer peak as described in Section 4.2 of this manual.
d. The sum of the DMNC of individual units in a multi-unit station cannot be greater than the capacity of the station taken as a whole; also the sum of the DMNC of individual units under a single PTID cannot be greater than the DMNC of the PTID taken as a single station. Each unit in the station is assigned a rating by distributing the combined Capacity among the units comprising the PTID.

Combined Cycle Stations

Valid DMNCs for combined cycle stations are determined by the following:

a. The sustained maximum net output over four (4) consecutive hours.
b. A combined cycle station's winter DMNC rating is determined on the basis of the average ambient and cooling system temperature experienced at the time of the Transmission District's winter peak as described in Section 4.2 of this manual.
c. A combined cycle station's summer DMNC rating is determined on the basis of the average ambient and cooling system temperature experienced at the time of the Transmission District's summer peak as described in Section 4.2 of this manual.
d. In cases where the sum of the DMNC rating of individual units in a combined cycle plant is greater than the DMNC of the plant taken as a single station, each unit is assigned a rating by distributing the plant DMNC among the units.

Intermittent Power Resources

DMNC tests are not required of Intermittent Power Resources. The DMNC value of Intermittent Power Resources will be the combined nameplate capacity of all units (usually aggregated in groups of small individual units) in each station, net of any station service Load required for operation and delivery to the

NYCA transmission system. The sum of the DMNC values of all units under a single PTID cannot be greater than the DMNC of the PTID taken as a single unit. Each such individual unit is assigned a rating by distributing the combined Capacity among the units comprising the PTID.

Limited Control Run-of-River Hydro Resources

DMNC tests are not required of Limited Control Run-of-River Hydro Resources. The DMNC value of Limited Control Run-of-River Hydro Resources is the combined nameplate capacity of all units in each PTID, net of any station service Load required for operation and delivery to the NYCA transmission system. The sum of the DMNC values of all units under a single PTID cannot be greater than the DMNC of the PTID taken as a single unit. The NYISO will determine the rating of each such individual unit by distributing the combined Capacity among the units comprising the PTID.

Special Case Resources

A Special Case Resource must demonstrate its Load reduction capability as specified in Sections 4.12.4.5 and 4.12.4.8 of this ICAP Manual.

Energy Storage Resources

Valid DMNCs for Energy Storage Resources that utilize electrochemical technology (for example, a lithium ion battery) are determined by the following:

a. The sustained maximum net output over one (1) hour.
b. An Energy Storage Resource may derate its output to meet the applicable Services Tariff Section 5.12.14 run-time requirement.
c. For a multi-unit station, the DMNC is determined for the PTID and each unit in such a station is assigned a rating by distributing the combined station DMNC among them.

Valid DMNCs for Energy Storage Resources that do not utilize electrochemical technology are determined by the following:

a. The sustained maximum net output over four (4) consecutive hours.
b. An Energy Storage Resource may provide a derated output to meet the applicable Services Tariff Section 5.12.14 run-time requirement.
c. For a multi-unit station, the DMNC is determined for the PTID and each unit in such a station is assigned a rating by distributing the combined station DMNC among them.

Capacity Limited Resources

Valid DMNCs for Capacity Limited Resources are determined by the following:

a. The sustained maximum net output averaged over a four (4) consecutive hour period, with the exception of Internal Combustion units or Combustion Turbines that are approved as Capacity Limited Resources, which will instead use the sustained maximum net output for a one (1) hour period.

b. For a multi-unit station, the DMNC is determined for the group and each unit in such a station is assigned a rating by distributing the combined station DMNC among them.

c. The sum of the DMNCs of individual units in a multi-unit station cannot be greater than the capacity of the station taken as a whole; also the sum of the DMNC of individual units under a single PTID cannot be greater than the DMNC of the PTID taken as a single plant. Each such unit is assigned a rating by distributing the combined Capacity among the units comprising the PTID.

Installed Capacity Suppliers participating as a CSR

Each Installed Capacity Supplier participating in the NYISO Installed Capacity market as part of a CSR must adhere to the DMNC testing provisions applicable to an Energy Storage Resource or an Intermittent Power Resource, as appropriate, as detailed in this section 4.2.2 of the *ICAP Manual*.

4.2.2.2 Installed Capacity Suppliers with an Energy Duration Limitation

Prior to the Capability Year that begins May 1, 2024, valid DMNCs for Installed Capacity Suppliers with an Energy Duration Limitation, including Energy Limited Resources, are determined by the following:

a. For an initial DMNC the unit shall sustain maximum net output, during the applicable Peak Load Window as determined in accordance with Section 4.1.1 of this *ICAP Manual*, for the number of hours that correspond to its elected Energy Duration Limitation, in accordance with Attachment M of this *ICAP Manual.*

b. For each Capability Period following its initial registration, a unit should perform a DMNC test during the applicable Peak Load Window as determined in accordance with Sections 4.1.1 and 4.2.1 of this *ICAP Manual*, for a minimum of either (i) its elected Energy Duration Limitation or (ii) the duration required by its technology type outlined in *ICAP Manual* Section 4.2.2.1.

1. If the unit elected an Energy Duration Limitation that is longer that the DMNC test required by its technology type, then the following applies:
    i. Information corresponding to the unit's total storage capability and Energy Level (i.e. state of charge) must be provided in writing and must be received via electronic email at Customer_Registration@nyiso.com by August 1st of a given Capability Year; and
    ii. Note that the NYISO has the authority to request a duration audit of the unit to prove that is can sustain output consistent with its elected Energy Duration Limitation.

c. If the unit increases its elected Energy Duration Limitation for an upcoming Capability Year, the unit's DMNC test must demonstrate its ability to sustain its maximum net output for the number of hours that correspond to its newly elected Energy Duration Limitation.

Starting with the Capability Year that begins May 1, 2024, valid DMNCs for Installed Capacity Suppliers with an Energy Duration Limitation, including Energy Limited Resources, are determined by the following:

a. For an initial DMNC the unit shall sustain maximum net output for the number of hours that correspond to its elected Energy Duration Limitation, in accordance with Attachment M of this *ICAP Manual*. If the unit has elected an Energy Duration Limitation less than or equal in length to the number of hours comprising the applicable Peak Load Window, the unit shall sustain maximum net output for the number of hours that correspond to its elected Energy Duration Limitation during the applicable Peak Load Window. If the unit has elected an Energy Duration Limitation greater in length than the number of hours comprising the applicable Peak Load Window, the unit shall sustain maximum net output during the entirety of the Peak Load Window and for additional hours immediately preceding and following the Peak Load Window covering the remaining hours of the unit's Energy Duration Limitation that are not captured in the Peak Load Window. The number of additional hours both preceding and following the Peak Load Window for which the unit must demonstrate sustained maximum net output shall be determined by subtracting the length of the Peak Load Window from the Energy Duration Limitation and dividing the result by two.

b. For each Capability Period following its initial registration, a unit should perform a DMNC test during the applicable Peak Load Window as determined in accordance with Section 7.3

of this ICAP Manual, for a minimum of either (i) its elected Energy Duration Limitation or (ii) the duration required by its technology type outlined in ICAP Manual Section 4.2.2.1.

1. If the unit elected an Energy Duration Limitation that is longer that the DMNC test required by its technology type, then the following applies:
    i. Information corresponding to the unit's total storage capability and Energy Level (i.e. state of charge) must be provided in writing and must be received via electronic email at Customer_Registration@nyiso.com by August 1st of a given Capability Year; and
    ii. Note that the NYISO has the authority to request a duration audit of the unit to prove that is can sustain output consistent with its elected Energy Duration Limitation.

c. If the unit increases its elected Energy Duration Limitation for an upcoming Capability Year, the unit's DMNC test must demonstrate its ability to sustain its maximum net output for the number of hours that correspond to its newly elected Energy Duration Limitation.

4.2.3. Treatment of Station Service Load

In general, the DMNC rating for a Resource is the amount of power delivered to the transmission grid. The DMNC rating should reflect a reduction in gross output of the Resource for station service Load. In most cases, this determination is straightforward because the Resource is connected to the Transmission System, and the amount of power provided to the Transmission System reflects the station service Load reduction.

In other cases, a portion of the station service Load may be provided from sources other than the Resource. In these cases, separate measurements must be made of the station service Load and subtracted from the Resource's gross output measured at the generator leads at the time of the DMNC test.

In the event of disagreement concerning the station service Load for facilities that fall into the latter category, the relevant Transmission Owners will provide to the NYISO any information available to it, which relates to the configuration of the Resource and its station service Load. If the disagreement concerning the station service Load is not resolved by the additional information the Transmission Owners provide, the NYISO Expedited Dispute Resolution Procedures [as set forth in Section 5.16 of the *NYISO Services Tariff* (available from the NYISO Web site at the following URL: https://www.nyiso.com/regulatory-viewer) shall be used to determine the station service Load in dispute.

If the station service Load of a BTM:NG Resource is separately metered from all other Load of the resource, such that the station service Load can be independently measured and verified, the Generator of a BTM:NG Resource may elect to perform a DMNC Test instead of a DMGC Test pursuant to Services Tariff section 5.12.6.1.1 (see also section 4.2 of this ICAP Manual). Such election must be made in writing to the NYISO prior to the start of the DMNC Test Period.

The term "separately metered" means, for the purposes of this section, that the Station Power (as defined in Services Tariff section 2.19) of the Generator serving the BTM:NG Resource is metered by an individual meter located at the Generator such that it measures only the Station Power consumed by the Generator.

If the meter measures any Load that is not required for the operation of the Generator or the incidental need of the station house, the BTM:NG Resource must perform a DMGC test.

If a BTM:NG Resource elects to perform a DMNC Test, the station service Load measured during such DMNC Test shall not be included in the Resource's Host Load as described in Section 4.15.2.5 of this ICAP Manual. A BTM:NG Resource's DMNC value for the Capability Period shall be used in lieu of a DMGC value in the calculation of the resource's Adjusted DMGC for the purposes of Sections 4.15.3.1.

4.2.4. Required DMNC Generating Capability Test Data

An entity that wants to establish a DMNC rating for its Resources must report the DMNC test data for each of its Resources to the NYISO using the ICAP Market System. The *ICAP Automated Market User's Guide* can be found at: https://www.nyiso.com/installed-capacity-market

4.2.5. New Resources and Resources Returning from an Inactive State

New Resources and Resources returning from an Inactive state must qualify as Installed Capacity Suppliers based on the results of an appropriate DMNC Demonstration or Special Case Resource (SCR) registration before participating as an Installed Capacity Supplier in the NYISO Installed Capacity market. DMNC test data or data from actual operation must be received by the NYISO as prescribed by this *ICAP Manual* by the date and time specified in the ICAP Event Calendar. They will also be subject to validation requirements as set forth herein. All simple-cycle gas turbine and combined cycle units must temperature-adjust the results of their DMNC test data or data from actual operation using the procedures noted in this *ICAP Manual* or in the *ICAP Automated Market User's Guide* as noted above. New Resources and Resources returning from an Inactive state approved as qualified Installed Capacity Suppliers after submitting the necessary DMNC test data or data from actual operation from outside the normally applicable DMNC Test Period ("out-of-period") must verify the approved "out-of-period" DMNC rating during the next DMNC Test

Period. If the supplier is unable to verify the "out-of-period" DMNC rating in the next DMNC Test Period, then deficiency charges shall apply to any shortfall between the Installed Capacity equivalent of the UCAP sold from the unit and the results of the "in-period" test.

In addition to reporting appropriate DMNC Demonstration results, new generating Resources that want to participate in NYISO-administered auctions shall notify the NYISO in a letter. SCR notification is detailed in Section 4.12 of this *ICAP Manual*. The new generating Resource notification letter must include the unit's point ID (PTID) and shall state the intention of the Resource to seek qualification as an Installed Capacity Supplier, and include the Resource's name, location, and other information as the NYISO may reasonably request. This letter does not obligate a Resource to qualify as an ICAP Supplier; it allows the NYISO to prepare and be able to accommodate a Resource should that Resource request qualification and if the NYISO receives appropriate DMNC Demonstration results before an auction. A Resource shall notify the NYISO via a letter on or before 5:00:00 P.M. on the first business day of the month before that month in which it wishes to qualify as an Installed Capacity Supplier. For example, to qualify in the month of April to participate in the May Installed Capacity market, the NYISO must receive the notification letter no later than 5:00:00 P.M. on the first business day of March.

To qualify Installed Capacity for a Bilateral Transaction or for a self-supplying LSE, new Resources shall report to the NYISO the results of an appropriate DMNC Demonstration or Special Case Resource registration prescribed by this *ICAP Manual* by the date and time specified in the ICAP Event Calendar, which can be found at:

http://icap.nyiso.com/ucap/public/evt_calendar_display.do.

4.2.6. NYISO Distribution of Resource Capacity Data to the NYCA Transmission Owners

The NYISO provides the DMNC data collected pursuant to this ICAP Manual to the operating function unit of the appropriate Transmission Owners (TOs) sixty (60) days following the end of the capability period. Provision of generator reactive capability data to TOs is described in Section 3.6.4 of the Ancillary Services Manual.

4.3. Maintenance Scheduling Requirements (Sections 5.12.3 and 5.12.11 *NYISO Services Tariff*)

All Resources intending to supply Capacity to the NYCA must comply with the following procedures, unless specific exceptions are noted below.

1. Notify the NYISO, in a confidential notice, of proposed outage schedules for the next two (2) calendar years on or before September 1 at 5:00:00 P.M. of the current calendar year.

2. If Operating Reserve deficiencies are projected to occur in certain weeks for the upcoming calendar year, based upon the ISO's reliability assessment, Resources may be requested to voluntarily reschedule planned maintenance.
3. The NYISO will provide the Resource with alternative acceptable times for the rescheduled maintenance.
4. If the Resource is a Generator that qualifies as an Installed Capacity Supplier that does not voluntarily re-schedule its planned maintenance within the alternative acceptable times provided by the NYISO, the NYISO will invoke mandatory re-scheduling using the procedures prescribed in the *NYISO Outage Scheduling Manual (*available from the NYISO Web site at the following URL: https://www.nyiso.com/documents/20142/2923301/outage_sched_mnl.pdf/1c2cc085-0fce-6540-fded-c95d0c662568).
5. A Resource that did not qualify as an Installed Capacity Supplier prior to the Obligation Procurement Period and that intends to be an Installed Capacity Supplier within the Obligation Procurement Period must provide the NYISO with its proposed outage schedule for the current Capability Year and the following two (2) calendar years, no later than 5:00:000 P.M. on the first business day of the month preceding the month in which it intends to supply Unforced Capacity, so that it may be subject to the voluntary and mandatory rescheduling procedures described above.

An Installed Capacity Supplier that does not accept the NYISO's forced rescheduling of its proposed outages shall not qualify as an Installed Capacity Supplier for that unit for any month during which it schedules or conducts an outage.

4.3.1. (This Section intentionally left blank)

4.3.2. External System Resources

The NYISO and the External Control Area in which the External System Resource is located will coordinate the maintenance schedules for the interconnections that link these Resources to the NYCA. External System Resources are not subject to the voluntary and mandatory re-scheduling procedures described above.

4.3.3. Special Case Resources (Section 4.12 of this *ICAP Manual*)

Although SCRs are not subject to maintenance scheduling requirements, each SCR must be capable of being interrupted on demand at the direction of the NYISO, as specified in Section 5.12.11.1 of the *NYISO*

Services Tariff and this *ICAP Manual*. The RIP for a SCR that meets the criteria of the SCR Load Change Reporting Threshold as defined in Section 2.19 of the *NYISO Services Tariff*, or that is not capable of being interrupted on demand at the direction of the NYISO shall report such an occurrence to the NYISO in accordance with the requirements set forth in Sections 4.3.3.1 and 4.3.3.2 of this *ICAP Manual*.

4.3.3.1. Reporting SCR Change of Load

RIPs shall report a SCR Change of Load, as defined in Section 2.19 of the *NYISO Services Tariff*, in accordance with Section 5.12.11.1.3.1 of the *NYISO Services Tariff* and meeting the criteria of a Qualified Change of Load Condition as defined in Section 2.17 of the *NYISO Services Tariff*.

Procedures for identifying a SCR Change of Load for individual SCRs are defined in the table below. The RIP is required to document a SCR Change of Load and when the total Load reduction for SCRs that have a SCR Change of Load within the same Load Zone is greater than or equal to 5 MWs, the RIP shall report the SCR Change of Load for each SCR in accordance with Section 5.12.11.1.3.1 of the *NYISO Services Tariff*.

Qualified Change of Load Condition	SCR Change of Load Reporting Requirement
(i) The SCR is expected to have a reduction in total Load that meets or exceeds the SCR Load Change Reporting Threshold that is expected to continue for a total period that is greater than seven (7) consecutive days.	Submit SCR Change of Load form no later than 5:00:00 P.M. two (2) business days prior to the onset of the SCR Change of Load. Include start and expected end dates of the SCR Change of Load.
(ii) The SCR is experiencing a reduction in total Load that meets or exceeds the SCR Load Change Reporting Threshold that is expected to continue for a total period that is greater than seven (7) consecutive days.	Submit SCR Change of Load form no later than 5:00:00 P.M. on the seventh calendar day of the onset of the SCR Change of Load. Include date when the SCR Change of Load began and the expected end date.
(iii) The SCR experienced an unanticipated reduction in total Load that meets or exceeds the SCR Load Change Reporting Threshold for a period greater than seven (7) consecutive days within any month in which the SCR sold capacity or adjoining months in which the SCR sold capacity in either month.	Submit SCR Change of Load form no later than 5:00:00 P.M. on the day following the day the RIP became aware of the SCR Change of Load, include start and end dates of the SCR Change of Load.

The SCR Change of Load report shall be in writing on the SCR Change of Load form and must be received via electronic mail to SCR_Registration@nyiso.com. RIPs shall also notify the NYISO in writing as soon as practicable but no later than 5:00:00 P.M. two (2) business days following the date on which the SCR's load returns from a SCR Change of Load. The RIP's written notice shall be on the SCR Change of Load form and must be received via electronic mail to SCR_Registration@nyiso.com.

4.3.3.2. Reporting SCR Change of Status

RIPs shall report a SCR Change of Status, as defined in Section 2.19 of the *NYISO Services Tariff* in accordance with Section 5.12.11.1.3.2 of the *NYISO Services Tariff* and meeting the criteria of a Qualified Change of Load Condition as defined in Section 2.17 of the *NYISO Services Tariff*. When the SCR Change of Status is being reported for a future month(s) in the Capability Period, RIPs shall report the SCR Change of Status by uploading the required information into the Demand Response Information System (DRIS) using the enrollment file. When the SCR Change of Status is being reported for a month(s) in the Capability Period that has closed for enrollment, RIPs shall report the SCR Change of Status in the DRIS as specified in the *DRIS User's Guide*.

Qualified Change of Status Condition	SCR Change of Status Reporting Requirement

(i) The SCR is expected to have a reduction in total Load that meets or exceeds the SCR Load Change Reporting Threshold that will extend for a period of greater than sixty (60) consecutive days.	• When enrollment for a month(s) corresponding to the SCR Change of Status has not closed:
	  • Upload SCR Change of Status value and any change to the SCR declared value into the DRIS.
	• When enrollment for a month(s) corresponding to the SCR Change of Status has already closed:
	  • Report partial auction sales through the DRIS in accordance with 4.12.4.7 of this ICAP Manual.
	  • Report SCR Change of Status value in the DRIS as specified in the *DRIS User's Guide*. Upload SCR Change of Status value and any change to the SCR declared value into the DRIS during next SCR enrollment period for any additional future months the SCR Change of Status will be in effect.

(ii) The SCR is experiencing a reduction in total Load that meets or exceeds the SCR Load Change Reporting Threshold that is expected to continue for a total period that is greater than sixty (60) consecutive days.	• When enrollment for a month(s) corresponding to the SCR Change of Status has not closed: • Upload SCR Change of Status value and any change to the SCR declared value into the DRIS using the enrollment file. • When enrollment for a month(s) corresponding to the SCR Change of Status has already closed: • Report partial auction sales through DRIS in accordance with 4.12.4.7 of this ICAP Manual. • Report SCR Change of Status value in the DRIS as specified in the *DRIS User's*

Qualified Change of Status Condition	SCR Change of Status Reporting Requirement
	Guide. Upload SCR Change of Status value and any change to the SCR declared value into the DRIS during next SCR enrollment period for any additional future months the SCR Change of Status will be in effect.

(iii) The SCR has experienced an unanticipated reduction in total Load that meets or exceeds the SCR Load Change Reporting Threshold that has existed for a period greater than sixty (60) consecutive days in which the SCR sold capacity.	• When enrollment for a month(s) corresponding to the SCR Change of Status has already closed:
	  • Report partial auction sales through the DRIS in accordance with 4.12.4.7 of this ICAP Manual.
	  • Upload SCR Change of Status value and any change to the SCR declared value into the DRIS during next SCR enrollment period for any additional future months the SCR Change of Status will be in effect.
	• If the SCR has a Qualified Change of Status Condition that persists for more than sixty (60) days:
	  • Report SCR Change of Status value in the DRIS as specified in the *DRIS User's Guide* including start and end dates no later than 5:00:00 P.M. two (2) business days after the load reduction that meets the criteria of the SCR Change of Status has exceeded sixty (60) days.
	• If the SCR Change of Status occurred in the past:
	  • Report SCR Change of Status value in the DRIS as specified in the *DRIS User's Guide* including start and end dates no later than 5:00:00 P.M. on the last day of the Capability Period in which the SCR Change of Status began.
	The NYISO will not accept a SCR Change of Status after 5:00:00 P.M. on the last day of the Capability Period in which the SCR Change of Status began.

The RIP is required to report the end date of the SCR Change of Status regardless of whether the end date is in the current Capability Period or a future Capability Period.

For each month in which (a) the SCR Change of Status is in effect for a SCR and (b) the RIP imports into the DRIS any change in the enrollment for the SCR, the RIP shall upload to the DRIS (i) the SCR Change of Status value and (ii) any corresponding changes in the declared values. While a SCR Change of Status is in effect, the Net ACL for the month will be equal to the applicable ACL plus the Incremental ACL minus the reduction amount reported for the SCR Change of Status on the SCR Change of Status record with the most recent reporting date that applies to the month. For any SCR with a SCR Change of Status for at least one day in a month, the reduced ACL shall be applied for the entire month.

There shall be no relief from penalties or other obligations for failure to perform if the RIP was an Installed Capacity Supplier in any month within the Capability Period.

4.3.3.3. Increasing ACL in Conjunction with Change of Status Event Ending within Same Capability Period as Initiated

For a SCR that increases its load due to the end of a SCR Change of Status event in the same Capability Period in which the reduction pursuant to a SCR Change of Status report began, the RIP for a SCR whose ACL was reduced in accordance with 4.3.3.2, may (a) increase the SCR's ACL for any months remaining in the Capability Period in which the reduction occurred, (b) provided such increase corresponds to the 4.3.3.2 reduction, (c) in an amount not to exceed the ACL for that Capability Period prior to the 4.3.3.2 reduction. For the first month after the SCR Change of Status has ended, the SCR Change of Status value reported in the enrollment file uploaded to the DRIS must be zero, and any corresponding change to the declared value associated with the SCR Change of Status must be included as part of the enrollment file upload to the DRIS on or before the monthly deadline for resource enrollment changes.

4.3.3.4. Option for ACL if a Change of Status Event in Like Capability Period Different than Initiated

For a SCR returning from a SCR Change of Status in an equivalent Capability Period other than the Capability Period in which it began to reduce load in respect of a Change of Status report, the RIP for that SCR may claim as an ACL for that current Capability Period the ACL for the equivalent Capability Period established in the enrollment file imported into the DRIS (whether by the SCR's current or former RIP) immediately prior to reporting the SCR Change of Status.

4.3.3.5. Procedures for Determining Fluctuations in Load Attributed to Weather

RIPs shall report a SCR Change of Status as defined in section 2.19 of the NYISO Services Tariff. For SCRs with an applicable ACL greater than or equal to 500 kW, RIPs may optionally use the following procedure to demonstrate that the SCR experienced a reduction in total load that is attributable to the weather and, therefore, does not constitute a SCR Change of Status:

1. **Identifying historical relationship between SCR load kW and temperature**

1.1. Identify the nearest weather station to the SCR from the list of weather stations posted at the following location on the NYISO website: https://www.nyiso.com/documents/20142/1395789/weather_station_names.pdf

1.2. Record the date, hour, and load kW for the following hours from the Prior Equivalent Capability Period: (a) the hours corresponding to the SCR's monthly peak load kW during the range of hours used for determining the Capability Period SCR Load Zone Peak Hours in each of the six months, (b) the hours corresponding to the Capability Period SCR Load Zone Peak Hours, and (c) 20 additional hours in the 60 – 80 degree temperature range for the Summer Capability Period, or 20 additional hours in the 30 – 50 degree temperature range for the Winter Capability Period, during the range of hours used for determining the Capability Period SCR Load Zone Peak Hours.

1.3. For each load kW value recorded in step 1.2, identify the maximum temperature of that day at the weather station identified in step 1.1 using the load forecast weather data posted on the NYISO website.

1.4. Develop a temperature-load model in Excel based on the load kW and temperature identified in step 1.2 and step 1.3.

1.4.1. Create a scatter chart in Excel with temperature values on the x-axis and load kW values on the y-axis.

1.4.2. Add trend line in Excel to this scatter chart. Select the Excel Trend/Regression Type "Linear". Select the Excel options to "Display equation on chart" and "Display R-squared value on chart". After this step, Excel should display a trend line on the scatter chart, equation of the trend line, and the associated R-squared value.

1.4.3. If the best R-squared value of the trend line identified in step 1.4.2 is less than 0.70 the SCR at issue is not deemed to be weather sensitive for purposes of this Section 4.3.3.5 and therefore this procedure cannot be used.

> ***Note:*** Additional load kW and temperature values within the range of hours that corresponds with the Capability Period SCR Load Zone Peak Hours can be used to improve the fit of the trend line.

2. Calculating weather adjusted load kW for the current Capability Period

2.1. For each month from the current Capability Period for which the SCR Change of Status may need to be reported, record the date, hour, and load kW of the monthly peak within the range of hours that corresponds with the Capability Period SCR Load Zone Peak Hours.

2.2. For each monthly peak recorded in step 2.1, identify the day's maximum temperature at the weather station identified in step 1.1 using the load forecast weather data posted on the NYISO website.

2.3. For each monthly peak recorded in step 2.1, calculate the weather adjusted monthly peak load kW for the current Capability Period using the equation identified in step 1.4.2 and using the temperature identified in step 2.2. This weather adjusted monthly peak load kW represents the expected load value on that day's temperature if the load responded to weather similarly to the previous year.

2.4. If the actual peak load kW for a month is greater than or equal to 90% of the weather adjusted monthly peak load kW as calculated in step 2.3, then the reduction in the SCR's total load in that month shall be deemed to be attributable to weather for purposes of this Section 4.3.3.5 and, therefore, shall not constitute a SCR Change of Status.

2.5. If the actual peak load kW for a month is lower than 90% of the weather adjusted monthly peak load kW as calculated in step 2.3, then the reduction in the SCR's total load in that month shall not be deemed to be attributable to weather for purposes of this Section 4.3.3.5, and may be required to be reported as a SCR Change of Status to that extent that such reduction meets the requirements of a SCR Change of Status as defined in Section 2.19 of the *NYISO Services Tariff*.

If the RIP uses the above procedure to determine SCR load changes attributable to weather, the RIP shall retain records supporting the information, and provide the information to the NYISO upon request.

4.4. Operating Data Reporting Requirements (Section 5.12.5 *NYISO Services Tariff*)

Installed Capacity Suppliers shall submit Operating Data to the NYISO every month in accordance with the following subsections. Further details applicable to generating Resources are included in Attachment K to this *ICAP Manual*, at the NERC-GADS Web site https://www.nerc.com/pa/RAPA/gads/Pages/GeneratingAvailabilityDataSystem-(GADS).aspx and in the NERC Data Reporting Instructions at https://www.nerc.com/pa/RAPA/gads/Pages/Data%20Reporting%20Instructions.aspx. The NYISO collects a subset of the data covered by the NERC Data Reporting Instructions and is focused principally on outage types. For example, an exception to the NERC Data Reporting Instructions is covered in Section 4.6.2 of this *ICAP Manual*. The completeness, accuracy, and validity of the performance data sent to the NYISO are the responsibility of the Resource making such data submission. Installed Capacity Suppliers that do not

comply with the following subsections shall be subject to the sanctions provided in Section 5.12.12 of the *NYISO Services Tariff* (available from the NYISO Web site at the following URL: https://www.nyiso.com/regulatory-viewer).

When an Installed Capacity Supplier (the "Seller") sells Unforced Capacity to another Installed Capacity Supplier (the "Purchaser"), such as an Installed Capacity Marketer, the Seller and the Purchaser may designate the Purchaser as the entity responsible for fulfilling the obligations and requirements set forth in Section 4.4 of this *ICAP Manual*. Such designation shall be made in writing and received by the NYISO no later than 5:00:00 P.M. on the seventh (7th) calendar day before the date by which any of the relevant obligations or requirements must be fulfilled.

If no designation is made to the NYISO, the Seller shall be responsible for fulfilling all the obligations and requirements set forth in this Section 4.4 of this *ICAP Manual*. The Purchasers that are designated pursuant to the preceding paragraph shall be subject to the sanctions provided in Section 5.12.12 of the *NYISO Services Tariff* (available from the NYISO Web site at https://www.nyiso.com/regulatory-viewer) as if they were a Seller.

4.4.1. Generators

Generators shall report to the NYISO Generating Availability Data System (GADS) Data or data equivalent to GADS Data pertaining to the previous month, which must be received no later than the 20th day of each month. For example, Generators shall report to the NYISO, which must be received by the NYISO on or before May 20, GADS Data or data equivalent to GADS Data pertaining to their operations during the month of April. Generators shall submit GADS Data or data equivalent to GADS Data in accordance with Attachment K of this *ICAP Manual*.

4.4.2. System Resources

System Resources shall provide to the NYISO GADS Data or data equivalent to GADS Data pertaining to the previous month, which must be received no later than the 20th day of each month. For example, System Resources shall report to the NYISO, which must be received by the NYISO on or before May 20, GADS Data or data equivalent to GADS Data pertaining to their operations during the month of April. System Resources shall submit GADS Data or data equivalent to GADS Data in accordance with Attachment K of this *ICAP Manual*.

4.4.3. Control Area System Resources

Control Area System Resources or the purchasers of Unforced Capacity from those Resources shall report to the NYISO CARL (Control Area Resource and Load) Data pertaining to the previous month, so that it is received by the NYISO no later than the 20th day of each month. For example, Control Area System Resources shall report to the NYISO, so that it is received by the NYISO on or before October 20, CARL Data pertaining to their operations during the month of September.

CARL Data submitted on a monthly basis shall cover (1) the prior month and (2) each individual hour during that month in which the Control Area System Resource was unable to supply the Energy associated with the Installed Capacity Equivalent of the Unforced Capacity it supplied to the NYCA. CARL Data submitted for a Control Area System Resource providing Installed Capacity from Control Area c shall consist of actual data and include the following information for each hour identified above and for each month:

1. The maximum actual total generating Capacity in Control Area c;
2. The actual External firm Capacity purchases by Control Area c, other than purchases from Resources in the NYCA;
3. The actual amount of load management (i.e., interruptible load) in Control Area c;
4. The actual peak Load for Control Area c, including system losses;
5. The actual External firm Capacity sales by Control Area c, other than firm capacity sales to the NYCA;
6. Actual losses, up to the border of the NYCA, that were incurred on transactions corresponding to sales of Unforced Capacity by that Control Area System Resource outside Control Area c;
7. The amount of generating Capacity in Control Area c that is actually unavailable due to planned maintenance;
8. The amount of generating Capacity in Control Area c that was actually unavailable due to forced outages; and
9. The amount of operating reserve that was actually available for Control Area c.

Control Area System Resources shall report forecasted CARL Data for items (1) through (7) above for each month of the following Capability Period, so that it is received by the NYISO no later than forty-five (45) days prior to the first day of each Capability Period. Control Area System Resources shall report data

for items (8) and (9) for each month for the NYISO's receipt no later than 20 days before the conclusion of each month.

During each Capability Period, a Control Area System Resources may submit revised forecasts of items (1) through (8) above for each month of that Capability Period. These forecasts may be revised to reflect changes in the allocation of planning reserve among the months of that Capability Period resulting from the amount of Installed Capacity actually sold by that Control Area System Resource earlier in the Capability Period. Such forecasts must be received on or before the 25th day before a month if they are to be used to determine the amount of CARL Data for the whole Capability Period in light of the External firm Capacity engaged in the previous months.

4.4.4. Energy Limited and Capacity Limited Resources

Energy and Capacity Limited Resources shall report to the NYISO GADS Data or data equivalent to GADS Data pertaining to the previous month, so that it is received by the NYISO no later than the 20th day of each month. For example, Energy and Capacity Limited Resources shall report to the NYISO, which must be received by the NYISO on or before May 20, GADS Data or data equivalent to GADS Data pertaining to their operations during the month of April. Energy and Capacity Limited Resources shall submit GADS Data or data equivalent to GADS Data in accordance with Attachment K of this *ICAP Manual*.

4.4.5. (This Section intentionally left blank)

4.4.6. Intermittent Power Resources

Intermittent Power Resources shall report to the NYISO data pertaining to their net dependable Capacity, actual generation, maintenance outage hours, planned outage hours, and other information as may be reasonably requested by the NYISO, such as the location and name of the Intermittent Power Resource, so that such data and information is received by the NYISO no later than the 20th day of each month. Intermittent Power Resources shall report actual operating data pertaining to the previous month on or before the 20th day of each month and in accordance with Attachment K of this *ICAP Manual*. For example, data from Intermittent Power Resources shall be received on or before May 20 pertaining to their operations during the month of April.

4.4.7. Special Case Resources (Section 4.12 of this *ICAP Manual*)

RIPs shall report the performance data of each individual SCR directly into the DRIS, as specified in Section 4.12.4.8, each time the SCR is called upon to operate, using an import file formatted as specified in

the *NYISO Demand Response Information System User's Guide* (available from the NYISO Web site at https://www.nyiso.com/manuals-tech-bulletins-user-guides).

4.4.7.1. Reporting of SCR Operating Data

The NYISO will treat the SCR-specific operating data that is received by the NYISO as confidential Transmission System Information and shall provide copies of such resource-specific (disaggregated) operating data to the transmission function of the Transmission Owner in whose transmission district the SCR is located in accordance with Section 4.0 of the NYISO's Code of Conduct (Attachment F to the *NYISO OATT*).

4.4.8. Municipally Owned Generation

Municipally owned generation shall report to the NYISO GADS Data or data equivalent to GADS Data pertaining to the previous month so that it is received by the NYISO no later than the 20th day of each month. For example, municipally owned generation shall report to the NYISO, which must be received by the NYISO on or before May 20, data equivalent to GADS Data pertaining to their operations during the month of April.

4.4.9. Co-Located Storage Resources

Generators that are Co-located Storage Resources must each, individually, comply with the requirements of Section 5.12.5.1 of the NYISO Services Tariff. Generators that are Co-located Storage Resources must submit outage data or other operational information in accordance with ISO Procedures that will allow the ISO to validate the CSR Scheduling Limits associated with the Co-located Storage Resources. CSR Scheduling Limits will be incorporated into each CSR Generator's UCAP calculation (see NYISO Services Tariff Section 5.12.6.2 as well as Section 4.5 and Attachment J of this Installed Capacity Manual.)

4.4.10. Resources Capable of Supplying Unforced Capacity in New York

This subsection applies to Resources that (1) have not previously been in operation in the NYCA, (2) are not subject to the requirements of Subsection 4.4.1 through Subsection 4.4.8 of this *ICAP Manual*, and (3) want to supply Unforced Capacity to the NYCA in the future.

No later than the tenth (10th) day of the month preceding the month when a Resource wants to supply Unforced Capacity to the NYCA, the NYISO must receive from a Resource the appropriate Operating Data pertaining to its operations over the two previous like-Capability Periods, if it was in operation. A Resource that wants to continue to supply Unforced Capacity in the NYCA immediately thereafter shall report the

appropriate Operating Data, and such data must be received by the NYISO on or before 5:00:00 P.M. on the twentieth (20th) day of each month.

For example, a Resource that wants to supply Unforced Capacity during the month of July 2021, must report to the NYISO Operating Data pertaining to Summer Capability Period 2020 and Summer Capability Period 2019, inclusively, so that the NYISO receives such data on or before 5:00:00 P.M. on June 10. Thereafter, the NYISO must receive the Resource's Operating Data in accordance with Subsections 4.4.1 through 4.4.8 of this *ICAP Manual*, as applicable.

If an Installed Capacity Supplier intends to request rights to import Installed Capacity from a neighboring control area (as defined by and in accordance with this *ICAP Manual*, "Import Rights") in accordance with this *ICAP Manual*, the NYISO must receive the results of an appropriate demonstration test of the Resource (i.e., DMNC test data) and Operating Data pertaining to its operations covering at least the two previous like-Capability Periods, if it was in operation, as prescribed by this *ICAP Manual*, and in the above paragraph, no later than 5:00:00 P.M. at least seven (7) business days before such Import Rights are to be requested.

4.4.11. Resources not in Operation for the Entirety of the Past Two Like-Capability Periods

A Resource that is required to report GADS Data or data equivalent to GADS Data that was not in operation for the entirety of the previous two like-Capability Periods and that wants to qualify as an Installed Capacity Supplier shall report any previously available like-Capability Period Operating Data so that the NYISO receives it no later than 5:00:00 P.M. on thirtieth (30th) day after that Resource commenced commercial operation, in accordance with Subsections 4.4.1 through 4.4.8 of this *ICAP Manual*, as applicable. New Resources with no historic Operating Data will be assigned a class average derating factor based upon the Resource's technology type in accordance with section 4.5 of this *ICAP Manual.*

A Resource that was in operation for part of, but not all of the previous two like-Capability Periods, but was operating prior to the start of the last two-like Capability Periods, will replace any missing month's data with the next available like-month's data. For example, a Resource that wants to supply Unforced Capacity for Summer Capability Period 2021, but has missing data for months August – October 2019, should replace those months with the next available like-months, i.e. August – October 2018.

A Resource that was not in operation for the previous two like-Capability Periods, but was operating prior to the start of the last two like-Capability Periods, should use the two next available like-Capability Period Operating Data. For example, a Resource that wants to supply Unforced Capacity for Summer Capability Period 2021, but was not operating for Summer Capability Periods 2020 and 2019, should

replace those Capability Periods with the two next available like-Capability Periods, i.e. Summer Capability Periods 2018 and 2017.

A Resource that was in operation for part of, but not all of the previous two like-Capability Periods, and was not operating prior to the start of the last two-like Capability Periods, should replace any missing data with the default derating factor values, in accordance with section 4.5 of this *ICAP Manual.* For example, a Resource that wants to supply Unforced Capacity for Summer Capability Period 2021, but only has Operating Data for Summer Capability Period 2020, should use the default derating factor for the missing period of the Summer Capability Period 2019.

4.4.12. Temporary Interruption in Availability

If a Generator in an otherwise operational state at the time of notice (that is, not otherwise forced out) does not sell or certify its Unforced Capacity (UCAP) on a temporary basis (i.e., elects not to participate in the UCAP Market or is not successful in selling its UCAP at auction or in a bilateral transaction), such interruption in availability of UCAP shall be taken on a monthly basis and may be treated for purposes of calculating the Equivalent Demand Forced Outage Rate (EFORd) for that unit as a maintenance outage with prior notification to the NYISO. If the Generator elects to bid the unit into the NYISO energy markets during such period, all such service hours and forced outage hours shall be included in the computation of the unit's EFORd, but periods where the unit is not selected may be reported as Reserve Shutdown Hours, as defined in Attachment J.

4.4.13. Generating Units that are Retired, Mothballed, in Inactive Reserves or in a Forced Outage or ICAP Ineligible Forced Outage

With the effective date of Section 5.18 of the Services Tariff, the NYISO Services Tariff defines five outage states; Inactive Reserve (IR), Mothballed (MB) or Retired (RU), ICAP Ineligible Forced Outage and Forced Outage. The outage states of Inactive Reserves, Mothball and Retired are considered to be "Inactive states". A Resource that is a Generator that is in an Inactive state or in an ICAP Ineligible Forced Outage is not qualified to participate in the NYISO Installed Capacity Market. A Market Participant that has a Generator defined to be in an Inactive state, ICAP Ineligible Forced Outage or Forced Outage state shall be required to comply with all requirements detailed in Section 5.18 of the NYISO Services Tariff as of the effective date of those requirements including, for purposes of this Manual, reporting requirements.

A Generator beginning a Forced Outage on or after the effective date of Section 5.18 of the Services Tariff shall have its Forced Outage expire on the last day of the month which contains the 180th day of its Forced Outage unless the Generator has Commenced Repair in accordance with Section 5.18 of the Services

Tariff. Generators that have Commenced Repair may remain in the ICAP market in a Forced Outage state provided the repairs have not ceased or been unreasonably delayed. The Forced Outage of a Generator that Commenced Repair shall terminate on the last day of the month containing the date that the repairs ceased or were unreasonably delayed and the Generator shall be placed in an ICAP Ineligible Forced Outage.

A Generator whose Forced Outage has expired or been terminated shall be placed in an ICAP Ineligible Forced Outage on the day following the day its Forced Outage expired or was terminated.

A unit in an ICAP Ineligible Forced Outage shall report its status as a Forced Outage in its GADS Data submitted to the NYISO.

A Generator may voluntarily reclassify itself from a Forced Outage to an ICAP Ineligible Forced Outage if the Generator has been in a Forced Outage for at least sixty (60) days. Such Generator shall begin its ICAP Ineligible Forced Outage on the first day of the month following the month in which it voluntarily reclassified its outage.

A Generator in an ICAP Ineligible Forced Outage or in a Mothball Outage shall be Retired if either the CRIS rights for the unit have expired or if the unit has been in an ICAP Ineligible Forced Outage or Mothball Outage for 36 consecutive months in accordance with Section 5.18 of the NYISO Services Tariff unless the tolling provisions of Sections 5.18.2.3.2 or 5.18.3.3.2 apply. A Generator in an ICAP Ineligible Forced Outage or in a Mothball Outage that has qualified for and is in a tolling period pursuant to the provisions of Sections 5.18.2.3.2 or 5.18.3.3.2 , respectively, shall be Retired on the earlier of i) 120 days from the date the outage would have otherwise expired or an ii) NYISO determination that the repairs have ceased or been unreasonably delayed.

A Generator in an Inactive Reserve state is unavailable for service for a limited period of time not to exceed six months for reasons that are not equipment related and that do not meet the criteria for classification of the Generator as in any other outage. This does not include units that may be idle because of equipment failure or reserve shutdown. A unit that is unavailable for reasons that are equipment related should be on a forced, maintenance or planned outage and remain on that outage until the proper repairs are completed and the unit can operate. With the effective date of Section 5.18 of the Services Tariff, Generators in Inactive Reserves are ineligible to participate in the ISO Installed Capacity market.

4.4.14. Units that have taken substantial actions inconsistent with an intention to Operate

With the effective date of Section 5.18 of the Services Tariff, a unit that has taken substantial actions inconsistent with an intention to return the Generator to operations and the Energy market shall be in an ICAP Ineligible Forced Outage as of the day following the day such actions began. Substantial actions

inconsistent with an intention to return the Generator to operations and the Energy market include dismantling or disabling essential equipment without an active replacement plan. ICAP ineligibility continues until the actions taken that were inconsistent with an intention to return the Generator to operations and the Energy market have ceased and the generator demonstrates it has returned to the market.

4.5. Calculation of the Amount of Unforced Capacity each Resource may Supply to the NYCA (Section 5.12.6.2 *NYISO Services Tariff*)

(a) Definitions

For purposes of Sections 4.5 and 4.5.1:

"Solar Farm" means a collection of solar installations with its electrical output metered at the interconnection with the NYCA Transmission System and which metering determines the Solar Farm's delivery to the NYCA.

(b) Calculation Procedure

Prior to the Capability Period that begins May 1, 2024, the NYISO will calculate the amount of Unforced Capacity that Resources are qualified to supply to the NYCA for each Capability Period. The Unforced Capacity methodology estimates the probability that a Resource will be available to serve Load, taking into account forced outages and forced deratings. To evaluate this probability, the NYISO will use the Operating Data submitted by each Resource in accordance with Section 4.4 of this *ICAP Manual*, and the mathematical formulae included in Attachment J of this *ICAP Manual*. The value (termed "CRIS-adjusted DMNC") used in determining the ICAP equivalent of the Unforced Capacity will be the smaller of the then currently-effective DMNC rating or the CRIS value, as applicable. Unforced Capacity values will remain in effect for the entire Capability Period, except in cases where corrections to historical data are necessary. The amount of Unforced Capacity that an Installed Capacity Supplier qualifies to supply shall be calculated by multiplying the Resource's Adjusted Installed Capacity value by the quantity 1 minus the Resource's applicable derating factor.

Starting with the Capability Period that begins May 1, 2024, the NYISO will calculate the amount of Unforced Capacity that Resources are qualified to supply as Installed Capacity Suppliers to the NYCA for each Capability Period. The Unforced Capacity methodology estimates a Resource's respective marginal reliability contributions toward meeting NYSRC resource adequacy requirements for the upcoming Capability Year. To calculate Unforced Capacity, the NYISO will use the Operating Data submitted by each Resource in accordance with Section 4.4 of this ICAP Manual, and the mathematical formulae included in

Attachment J of this ICAP Manual. The value (termed "CRIS-adjusted DMNC") used in determining the ICAP equivalent of the Unforced Capacity will be the smaller of the then currently- effective DMNC rating or the CRIS value, as applicable. A Resource's Adjusted Installed Capacity shall be equal to the Resource's Installed Capacity multiplied by its assigned Capacity Accreditation Factor, in accordance with Section 5.12.14 of the NYISO Services Tariff. The amount of Unforced Capacity that an Installed Capacity Supplier qualifies to supply shall be calculated by multiplying the Resource's Adjusted Installed Capacity value by the quantity 1 minus the Resource's applicable derating factor. Unforced Capacity values will remain in effect for the entire Capability Period, except in cases where corrections to historical data are necessary.

NYISO shall post Resource derating factors prior to the deadline identified in the ICAP Event Calendar for seasonal derating factors to be available in the ICAP Automated Market System. Installed Capacity Suppliers may review their assigned derating factor prior to the deadline in the ICAP Event Calendar for seasonal derating factors to be considered final. In the event that an Installed Capacity Supplier disputes a Resource derating factor, the Installed Capacity Supplier may calculate and provide, and the NYISO shall use, a derating factor to establish the Resource's derating factor for the upcoming Capability Period. The NYISO's Market Mitigation and Analysis department may perform an audit of the Installed Capacity Suppler-provided derating factor. If the Market Mitigation and Analysis department determines that the derating factor provided by the Installed Capacity Supplier is inaccurate, based on the applicable UCAP calculation rules in Attachment J of this ICAP Manual, then the Installed Capacity Supplier shall be subject to an ICAP shortfall penalty as described in Services Tariff Section 5.14.2 and section 5.8 of this ICAP Manual. Unforced Capacity values will remain in effect for the entire Capability Period. Refer to Attachment J of this *ICAP Manual* for additional information.

A Generator returning to the market after being in Inactive Reserves or before its Mothball Outage or ICAP Ineligible Forced Outage has expired that returns with modifications to its operating characteristics determined by the NYISO to be material, and which, therefore, require the submission of a new Interconnection Request will receive, as the initial derating factor for calculation of the Generator's Unforced Capacity upon its return to service, the derating factor it would have received as a newly connected unit in lieu of a derating factor developed from unit-specific data.

A Generator returning to the market after being in an Inactive Reserves or before its Mothball Outage or ICAP Ineligible Forced Outage has expired that, upon its return, uses as its primary fuel a fuel not previously used at the facility for any purpose other than for ignition purposes will receive, as the initial derating factor for calculation of the Generator's Unforced Capacity upon its return to service, the NERC class average derating factor in lieu of a derating factor developed from unit-specific data even if the

modifications to allow use of a new primary fuel are not material and do not require the submission of a new Interconnection Request.

For each Capability Period, the NYISO will base the amount of Unforced Capacity a Generator (other than an Energy Storage Resource, an Intermittent Power Resource, or a Limited Control Run-of-River Hydro Resource) is qualified to supply on the average of the two previous like-Capability Period EFORd values calculated for that Generator. Detailed procedures for calculating the Capability Period EFORd values are described in Attachment J of this *ICAP Manual*. Such EFORd values shall be for the same interval used to determine the Minimum Installed Capacity Requirement to Minimum Unforced Capacity Requirement translation for a given Capability Period, as noted in Sections 2.5 and 2.6 of this *ICAP Manual*. For a Generator (other than an Energy Storage Resource, an Intermittent Power Resource, or a Limited Control Run-of-River Hydro Resource) in Inactive Reserves, a Mothball Outage or an ICAP Ineligible Forced Outage that started on or after the effective date of Section 5.18 of the Services Tariff and that precluded its eligibility to participate in the Installed Capacity market at any time during any month from which GADS or other operating data would otherwise be used to calculate an individual Equivalent Demand Forced Outage Rate, the ISO shall replace such month's GADS or other Operating Data with GADS or other Operating Data from the most recent like-month in which the Generator was not in an outage state that precluded its eligibility to participate in the Installed Capacity market.

For each Capability Period, the NYISO will base the amount of Unforced Capacity an Energy Storage Resource is qualified to supply on the average of the previous two like-Capability Period Unavailability Factors calculated for that Resource. Detailed procedures for calculating the Capability Period Unavailability Factors are described in Attachment J of this *ICAP Manual*. Such Unavailability Factors shall be for the same interval used to determine the Minimum Installed Capacity Requirement to Minimum Unforced Capacity Requirement translation for a given Capability Period, as noted in Sections 2.5 and 2.6 of this *ICAP Manual*. For an Energy Storage Resource in Inactive Reserves, a Mothball Outage or an ICAP Ineligible Forced Outage that started on or after the effective date of Section 5.18 of the Services Tariff and that precluded its eligibility to participate in the Installed Capacity market at any time during any month from which other operating data would otherwise be used to calculate an individual Unavailability Factor, the ISO shall replace such month's operating data with other operating data from the most recent like-month in which the Energy Storage Resource was not in an outage state that precluded its eligibility to participate in the Installed Capacity market.

For Special Case Resources, Unforced Capacity values will be based on two successive seasonal performance factors of each individual Special Case Resource as described in Section 4.12 of this *ICAP Manual*.

For each Capability Period, prior to the Capability Period that begins May 1, 2024, the NYISO shall compute the amount of Unforced Capacity that each Limited Control Run-of-River Hydro Resource is authorized to provide in the NYCA separately for Summer and Winter Capability Periods. The amount for each Capability Period shall be equal to the rolling average of the hourly net Energy provided by each Limited Control Run-of River Hydro Resource during the twenty (20) highest NYCA-integrated real-time load hours in each of the five (5) previous Summer or Winter Capability Periods, as appropriate, stated in megawatts. For a Limited Control Run-of-River Hydro Resource in an outage state that started on or after the effective date of Section 5.18 of the NYISO Services Tariff and that precluded its eligibility to participate in the Installed Capacity market during one of the 20 highest NYCA integrated real-time load hours in any one of the five previous Summer or Winter Capability Periods, the ISO shall replace the 20 highest NYCA integrated real-time load hours from that Winter or Summer Capability Period, as appropriate, with the 20 highest NYCA integrated real-time load hours from the next most recent Winter or Summer Capability Period such that the rolling average of the hourly net Energy provided by each such Resource shall be calculated from the 20 highest NYCA integrated real-time load hours in the five most recent prior Summer or Winter Capability Periods in which the Resource was not in an outage state that precluded its eligibility to participate in the Installed Capacity market on one of the 20 highest NYCA integrated real-time load hours in that Capability Period.

For each Capability Period, prior to the Capability Period that begins May 1, 2024, Intermittent Power Resource Unforced Capacity values will have Unforced Capacity values based on seasonal performance factors calculated in accordance with Attachment J of this *ICAP Manual*. Unforced Capacity from an Intermittent Power Resource for the summer Capability Period shall be based on the average weighted production during the specified Peak Load Windows for the months of June, July and August during the previous like-Capability Period. Unforced Capacity from an Intermittent Power Resource for the winter Capability Period shall be based on the average weighted production during the specified Peak Load Windows for the months of December, January, and February during the previous like-Capability Period. This calculation shall not include hours in any month that the Intermittent Power Resource was in an outage state that started on or after the effective date that precluded its eligibility to participate in the ICAP market in accordance with section 5.12.6.1 of the NYISO Services Tariff. For an Intermittent Power Resource in Inactive Reserves, a Mothball Outage or an ICAP Ineligible Forced Outage that started on or after the effective date of Section 5.18 of the *NYISO Services Tariff* and that precluded its eligibility to

participate in the Installed Capacity market at any time during any month from which other operating data would otherwise be used to calculate an individual Production Factor, the ISO shall replace such month's Operating Data with other Operating Data from the most recent like-month in which the Intermittent Power Resource was not in an outage state that precluded its eligibility to participate in the Installed Capacity market in accordance with section 5.12.6.1 of the *NYISO Services Tariff*. If the Intermittent Power Resource was not in operation for any previous like-month prior to the start of the Inactive Reserves, a Mothball Outage, or an ICAP Ineligible Forced Outage, the ISO will replace such month's Operating Data with the class average derating factor based upon the applicable Resource type.

For each Capability Period, starting with the Capability Period that begins May 1, 2024, the NYISO will calculate the amount of Unforced Capacity that each Limited Control Run-of River Hydro Resource and each Intermittent Power Resource is qualified to supply based on the Resource's Adjusted ICAP and resource specific derating factor. The resource specific derating factor for Limited Control Run-of River Hydro Resources and Intermittent Power Resources will be calculated, in accordance with Attachment J of this ICAP Manual, as a comparison of the Resource's applicable average capacity factor to the applicable average capacity factor of the representative unit used to calculate the Resource's Capacity Accreditation Factor. The measurement window for the calculation of the average capacity factor of the Resource and representative unit for use in calculating the Resource's Unforced Capacity for a summer Capability Period will be the specified Peak Load Windows for the months of June, July and August during the previous two like-Capability Periods. The measurement window for the calculation of the average capacity factor of the Resource and representative unit for use in calculating the Resource's Unforced Capacity for a winter Capability Period will be the specified Peak Load Windows for the months of December, January, and February during the previous two like-Capability Periods.

For an Intermittent Power Resource or Limited Control Run-of River Hydro Resource in Inactive Reserves, a Mothball Outage or an ICAP Ineligible Forced Outage that started on or after the effective date of Section 5.18 of the Services Tariff and that Precluded its eligibility to participate in the Installed Capacity market at any time during any month from which other operating data would otherwise be used to calculate an individual average capacity factor, the ISO shall replace such month's operating data with other operating data from the most recent like-month in which the Intermittent Power Resource or Limited Control Run-of River Hydro Resource was not in an outage state that precluded its eligibility to participate in the Installed Capacity market.

Unforced Capacity values for Installed Capacity Suppliers participating in the NYISO Installed Capacity market as part of a CSR will be calculated in accordance with the applicable procedure for each respective resource type described in this section 4.5 of this *ICAP Manual*, with the following modifications:

i) The Unforced Capacity for an Intermittent Power Resource that is participating in the NYISO Installed Capacity market as part of a CSR is calculated in accordance with Attachment J of this *ICAP Manual*. Prior to the Capability Period that begins May 1, 2024, the Production Factor for an Intermittent Power Resource participating in a CSR will not consider output in excess of the real-time CSR Injection Limit. The Unforced Capacity calculation compares the lower of the Generator's output or the real-time CSR Injection Limit, against the lower of the Generator's Nameplate or the registered CSR Injection Limit, across the applicable measurement hours. Starting with the Capability Period that begins May 1, 2024, the average capacity factor for an Intermittent Power Resource participating in a CSR will not consider output in excess of the real-time CSR Injection Limit. The Unforced Capacity calculation compares the lower of the Generator's output or the real-time CSR Injection Limit, against the lower of the Generator's Nameplate or the registered CSR Injection Limit, across the applicable measurement hours.

ii) The Unforced Capacity for an Energy Storage Resource that is participating in the NYISO Installed Capacity market as part of a CSR is calculated in accordance with Attachment J of this *ICAP Manual*. The Unforced Capacity calculation for an Energy Storage Resource will consider the availability of the shared interconnection facilities in addition to the unavailability of the ESR itself.

Prior to the Capability Period that begins May 1, 2024, initial Unforced Capacity values for new generating Resources will be based on the 1-year NERC class average EFORd values for Resources of the same type. If no NERC class average exists, the NYISO will estimate a class average using capacity values for at least three (3) Resources of the same type currently providing capacity in the NYISO market and have sufficient operational data; provided however, that for a new Intermittent Power Resource that depends upon wind or solar as fuel, the initial Unforced Capacity value (which is to be measured as the amount of capacity it can reliably provide during system peak Load hours) will be the product of the applicable Unforced Capacity percentage in the Table shown below and that resource's DMNC value (nameplate rating net of station power). The Unforced Capacity percentages for the land-based wind resources set forth below are based on the average annual Unforced Capacity percentages of all the existing wind resources between 2015 and 2019, where the annual Unforced Capacity percentages are the weighted averages using the existing wind resources' Installed Capacity from the corresponding Gold Book, and the historical wind

production during the hours within the applicable Peak Load Windows, as well as the associated hourly weighting factors as specified in Section 3.4.(c) in the *ICAP Manual Attachment J*. The Unforced Capacity percentages for off-shore wind resources set forth below are based on the average annual Unforced Capacity percentages between Winter 2016-17 and Summer 2021, where the annual Unforced Capacity percentages are the weighted averages using the simulated off-shore wind historical production during the hours within the applicable Peak Load Windows, as well as the associated hourly weighting factors as specified in Section 3.4(c) in the *ICAP Manual Attachment J*. The simulated off-shore wind historical production is based on the off-shore wind profiles for proposed offshore wind development areas near New York state, available on the NYISO website. These initial Unforced Capacity percentages will be reviewed and updated every four years as part of the study to reevaluate the hourly weighting factors as specified in Section 3.4.(c) in the *ICAP Manual Attachment J*. The initial Unforced Capacity value, whether based on the 1-year NERC class average EFORd or the NYISO estimate, is used for all applicable months in the Resource's derating factor calculation.

Until there are at least three (3) Energy Storage Resources with operational data for all months used in the Unavailability Factor calculation, the initial Unforced Capacity value for an Energy Storage Resource will be based on the NERC class average EFORd of Pumped Hydro Stations. Once there are at least three (3) Energy Storage Resources with operational data for all months used in the Unavailability Factor calculation, the NYISO class average for ESRs will replace the NERC class average EFORd of Pumped Hydro Stations as the initial Unforced Capacity value, including all applicable months in the derating factor calculation.

Unforced Capacity values for BTM:NG Resources are net values (i.e., Generation - Load), and will be based on two separate derating factors: (1) the EFORd for the Generator of BTM:NG Resource, as described in this section above, and (2) the NYCA Translation factor as described in Section 2.5 of this ICAP Manual. Detailed procedures for calculating the Unforced Capacity values are described in Section 4.15.3.2 of this *ICAP Manual*.

Unforced Capacity Percentage – Land-Based Wind		
	6-Hour Peak Load Window	**8-Hour Peak Load Window**
Summer	16%	16%
Winter	34%	34%

Unforced Capacity Percentage – Off-shore Wind (Zone J and K)*		
	6-Hour Peak Load Window	**8-Hour Peak Load Window**
Summer	35%	35%
Winter	54%	53%

For a new Intermittent Power Resource that is a Solar Farm, the Unforced Capacity value shall be equal to the product of (a) the Summer or Winter Unforced Capacity percentage for the Solar Farm based on the characteristics at the time the Unforced Capacity value is determined using the Tables in this Section, (i) if a fixed array, the Unforced Capacity Percentage for fixed tilt arrays determined using the azimuth angle and the tilt angle for the Solar Farm, (ii) if a tracking array, the Unforced Capacity Percentage for tracking arrays, (b) the solar inverter and transformer efficiency multiplier determined based on the inverter efficiency supplied by the Installed Capacity Supplier on behalf of the Intermittent Power Resource, and (c) the sum of the nameplate DC power rating for all installations within the Solar Farm.

Summer Unforced Capacity Percentage – Solar (Fixed Tilt Arrays)											
Azimuth Angle (Degrees)	Tilt Angle (Degrees)										
	Below 3	3 - 7	8 - 12	13 - 17	18 - 22	23 - 27	28 - 32	33 - 37	38 - 42	43 - 47	Above 47
Below 163	36%	36%	36%	35%	35%	34%	33%	31%	30%	28%	26%
163 - 167	36%	36%	36%	36%	35%	35%	34%	33%	31%	30%	28%
168 - 172	36%	37%	37%	36%	36%	36%	35%	34%	33%	31%	30%
173 - 177	36%	37%	37%	37%	37%	36%	36%	35%	34%	33%	31%
178 - 182	36%	37%	37%	37%	37%	37%	37%	36%	35%	34%	33%
183 - 187	36%	37%	38%	38%	38%	38%	38%	37%	36%	36%	34%
188 - 192	36%	37%	38%	38%	39%	39%	39%	38%	38%	37%	36%
193 - 197	36%	37%	38%	39%	39%	40%	39%	39%	39%	38%	37%
198 - 202	36%	37%	39%	39%	40%	40%	40%	40%	40%	39%	38%
203 - 207	36%	38%	39%	40%	40%	41%	41%	41%	41%	40%	39%
208 - 212	36%	38%	39%	40%	41%	41%	42%	42%	42%	41%	41%

213 - 217	36%	38%	39%	40%	41%	42%	42%	42%	42%	42%	41%
Above 217	36%	38%	39%	41%	42%	42%	43%	43%	43%	43%	42%

Winter Unforced Capacity Percentage – Solar (Fixed Tilt Arrays)											
Azimuth Angle (Degrees)	Tilt Angle (Degrees)										
	Below 3	3 - 7	8 - 12	13 - 17	18 - 22	23 - 27	28 - 32	33 - 37	38 - 42	43 - 47	Above 47
Below 163	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
163 - 167	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%
168 - 172	0%	0%	0%	0%	0%	1%	1%	1%	1%	1%	1%
173 - 177	0%	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%
178 - 182	0%	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%
183 - 187	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%
188 - 192	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%
193 - 197	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%
198 - 202	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	2%
203 - 207	0%	0%	1%	1%	1%	1%	1%	1%	1%	2%	2%
208 - 212	0%	0%	1%	1%	1%	1%	1%	1%	2%	2%	2%
213 - 217	0%	0%	1%	1%	1%	1%	1%	1%	2%	2%	2%
Above 217	0%	0%	1%	1%	1%	1%	1%	2%	2%	2%	2%

Unforced Capacity Percentage – Solar (Tracking Arrays, 1 or 2 Axis)	
Summer	46%
Winter	2%

Solar Inverter and Transformer Efficiency Multiplier

Inverter Efficiency	0.88	0.89	0.90	0.91	0.92	0.93	0.94	0.95	0.96	0.97	0.98
Applicable Multiplier	0.96	0.97	0.98	0.99	1	1.01	1.02	1.03	1.04	1.05	1.07

Starting with the Capability Period that begins May 1, 2024, initial Unforced Capacity values for new generating Resources will be based on the applicable Capacity Accreditation Factor for the generating Resource's Capacity Accreditation Resource Class and the 1-year NERC class average EFORd value for Resources of the same type. If no NERC class average exists, the NYISO will estimate a class average using EFORd values for at least three (3) Resources of the same type currently providing capacity in the NYISO market and have sufficient operational data; provided however, that for a new Limited Control Run-of River Hydro Resource or Intermittent Power Resource , the initial Unforced Capacity value will be based on the applicable Capacity Accreditation Factor for the Resource's Capacity Accreditation Resource Class and a derating factor of zero. The initial Unforced Capacity value, whether based on the 1-year NERC class average EFORd or the NYISO estimate, is used for all applicable months in the Resource's derating factor calculation.

Until there are at least three (3) Energy Storage Resources with operational data for all months used in the Unavailability Factor calculation, the initial Unforced Capacity value for an Energy Storage Resource will be based on the applicable Capacity Accreditation Factor for the Resource's Capacity Accreditation Resource Class and the NERC class average EFORd of Pumped Hydro Stations. Once there are at least three (3) Energy Storage Resources with operational data for all months used in the Unavailability Factor calculation, the NYISO class average for ESRs will replace the NERC class average EFORd of Pumped Hydro Stations as the initial Unforced Capacity value, including all applicable months in the derating factor calculation.

Unforced Capacity values for BTM:NG Resources are net values (i.e., Generation - Load), and will be based on two separate derating factors: (1) the EFORd for the Generator of BTM:NG Resource, as described in this section above, and (2) the NYCA Translation factor as described in Section 2.5 of this ICAP Manual. Detailed procedures for calculating the Unforced Capacity values are described in Section 4.15.3.2 of this *ICAP Manual*.

4.6. Operating Data Default Value and Exception for Certain Equipment Failures (Section 5.12.6.3 and 5.12.6.4 NYISO Services Tariff)

4.6.1. Default Value

In its calculation of the amount of Unforced Capacity that each Resource is qualified to supply to the NYCA and notwithstanding the provisions of Section 4.5 of this *ICAP Manual*, the NYISO will deem a Resource to be completely forced out during each month for which the Resource has not submitted its Operating Data in accordance with Section 4.4 of this *ICAP Manual*. Pursuant to Section 5.12.12 of the*NYISO Services Tariff* (available from the NYISO Web site at https://www.nyiso.com/regulatory-viewer), Resources that do not comply with Section 4.4 of this *ICAP Manual* also are subject to information submission requirements sanctions.

Resources that are deemed to be completely forced out during any month may submit new Operating Data to the NYISO at any time. The format and substance of the new Operating Data shall comply with the requirements set forth in Sections 4.4.1 through 4.4.8, as applicable. Within ten (10) calendar days of receipt of new Operating Data that comply with such requirements, the NYISO shall use this new Operating Data to recalculate the amount of Unforced Capacity that such Resources may supply to the NYCA.

Upon a showing of extraordinary circumstances, the NYISO retains the discretion to accept at any time Operating Data which have not been submitted in a timely manner, or which do not fully conform with Section 4.4 of this *ICAP Manual*.

4.6.2. Exception for Certain Equipment Failures

When a Generator, Energy/Capacity Limited Resource, System Resource, Intermittent Power Resource or Control Area System Resource is forced into an outage by an equipment failure that involves equipment located on the electric network beyond the step-up transformer, and including such step-up transformer, the NYISO shall not treat the outage as a forced outage for purposes of calculating the amount of Unforced Capacity such Installed Capacity Suppliers are qualified to supply in the NYCA. This exception is not limited to equipment failures that occur on the New York State electrical network and extends to equipment failures that occur on electrical networks operated by External Control Areas

This exception is limited to an equipment failure that involves equipment located on the electric network beyond the generator step-up transformer, and including such step-up transformer on the output side of the Generator, Energy/Capacity Limited Resource, System Resource, Intermittent Power Resource or Control Area System Resource. This exception does not apply to fuel related outages or derates or other cause codes that might be classified as Outside Management Control in the NERC Data reporting

Instructions. In reporting Operating Data (GADS data), a Generator, Energy/Capacity Limited Resource, or System Resource shall report a generator outage or derating caused by an equipment failure that involves equipment located on the electric network beyond the step-up transformer, and including such step-up transformer, in accordance with normal outage reporting procedures and document them as a forced outage (U1, U2, U3, D1, D2 or D3) with a cause code of 9300.

Intermittent Power Resources will report generator outage and derated hours caused by an equipment failure that involves equipment located on the electric network beyond the step-up transformer, and including such step-up transformer, in accordance with normal outage reporting procedures and document them in accordance with instructions for Intermittent Power Resources to be found in Attachment K to this *ICAP Manual*.

If an outage occurs on the transmission system beyond the generator step-up transformer, and including such step-up transformer, at a time when a Generator has not placed its unit on a maintenance outage, such interruption in availability shall be treated for purposes of calculating the unit's EFORd rating as a maintenance outage (MO) in the case of a forced outage (U1, U2, U3) or as a maintenance derate (D4) in the case of a forced derating (D1, D2, D3).

If an outage occurs on the transmission system beyond the generator step-up transformer, and including such step-up transformer, at a time when a Generator is on a maintenance outage, such interruption in availability shall be treated for purposes of calculating the unit's EFORd rating as a maintenance outage. In the event that service resumes on the transmission system but the unit categorized as being on a reserve shutdown is not able to perform, the unit shall be charged with a forced outage from the time that the transmission outage ended until the time it resumes operations (the "post transmission outage period"); provided however, that if the unit had been scheduled to take a maintenance outage during the post transmission outage period, the unit shall be charged with a Forced Outage, as defined in Attachment J, until the scheduled start date of its maintenance outage, at which time it will be charged with a maintenance outage until the end of its scheduled maintenance period.

If a forced outage or derate extends into a previously approved scheduled outage, or an equipment failure or problem beyond the scope of a previously approved scheduled outage extends beyond the scheduled return date from such a scheduled outage, the GADS data must address both outage types by breaking the outage into a maintenance outage and a forced outage with the duration of the forced outage properly reflected in the data. For further explanation, refer to the NERC Data Reporting Instructions at: https://www.nerc.com/pa/RAPA/gads/Pages/Data%20Reporting%20Instructions.aspx.

4.7. Monthly Installed Capacity Supplier Certification

Each Installed Capacity Supplier must certify its Unforced Capacity to the NYISO no later than the deadline for monthly certification as provided in the detailed ICAP Event Calendar that can be found by selecting the link provided: (http://icap.nyiso.com/ucap/public/evt_calendar_display.do), demonstrating that the Unforced Capacity it is supplying is not already committed to meet the Minimum Installed Capacity Requirement of an External Control Area.

Each Installed Capacity Supplier holding rights to UDRs from an External Control Area that has made such an election shall confirm to the NYISO no later than the deadline for monthly certification for May as provided in the detailed ICAP Event Calendar that it will not use as self-supply or offer, and has not sold, Installed Capacity associated with the quantity of MW for which it has made its one time capability adjustment year election.

In addition, each Installed Capacity Supplier that has been derated (i.e., has had an amount of Unforced Capacity it is authorized to supply in the NYCA reduced by the NYISO in accordance with section 4.5 of this *ICAP Manual*) shall demonstrate in its monthly certification that it has procured sufficient additional Unforced Capacity to cover any shortage, due to such de-rating, of Unforced Capacity it has previously committed to supply in the following month or go into the ICAP Spot Market Auction.

If an Installed Capacity Supplier has sold UCAP and subsequently sells those UCAP assets on a date prior to the expiration of the UCAP sale, the responsibility for certifying the sold UCAP remains with the Installed Capacity Supplier that initially sold the UCAP. It is the responsibility of the selling Installed Capacity Supplier to either (1) arrange a bilateral agreement with the new owner of the UCAP assets to cover this requirement or (2) purchase the requirement through another bilateral transaction or through the NYISO-administered auctions.

If an Installed Capacity Supplier has sold UCAP that includes New Special Case Resources (as defined in subsection 4.12.2 of this *ICAP Manual*) in a Capability Period Auction, Monthly Auction, or Bilateral Transaction, the responsibility for certifying the sold UCAP remains with the Installed Capacity Supplier that sold the UCAP.

If a bilateral transaction is certified by an Installed Capacity Supplier, but is not confirmed by the second party to the transaction, the bilateral transaction submitted by the Installed Capacity Supplier remains unconfirmed at the close of the certification period. The UCAP associated with the unconfirmed bilateral transaction sale remains with the Installed Capacity Supplier that submitted the bilateral transaction for certification.

4.8. Bidding, Scheduling, and Notification Requirements (Sections 5.12.7 and 5.12.11 *NYISO Services Tariff*)

On any day for which it supplies Unforced Capacity, each Installed Capacity Supplier (except as noted below) must schedule or Bid into the Day-Ahead Market, or declare to be unavailable an amount of Energy that is not less than the Installed Capacity Equivalent of the amount of Unforced Capacity it is supplying to the NYCA from each Resource that it uses to supply Unforced Capacity. Planned or Maintenance outages must be scheduled ("scheduled outages") in advance of any Day-Ahead bidding. Any declared or unavailable Energy/Capacity not previously scheduled and approved as out of service must be reported as a Forced Outage or Forced Derating in accordance with the operating data reporting requirements in Section 4.4 and Attachment K of this *ICAP Manual*. Each Installed Capacity Supplier that utilized a UDR or EDR for an Unforced Capacity obligation for a month must report scheduled and Forced Outages and Forced Deratings of each generator associated with its UDRs and EDRs in the AMS, but it is not required by this provision to report outages of the UDR or EDR transmission facility. Nothing in this Installed Capacity Manual relieves the owner or operator of the UDR or EDR facility from its reporting obligations.

Each Installed Capacity Supplier providing Unforced Capacity must designate the entity that will be responsible for complying with these bidding, scheduling, and notification requirements.

4.8.1. Generators and System Resources

For every hour of any day for which Generators and System Resources supply Unforced Capacity, they must provide the Installed Capacity Equivalent of the amount of Unforced Capacity they are supplying to the NYCA through a combination of scheduling or Bidding in the Day-Ahead Market, or in accordance with the notification procedure below. In addition to providing the Installed Capacity Equivalent of the amount of Unforced Capacity they are supplying to the NYCA, Energy Storage Resources must also provide the maximum of the (i) negative Installed Capacity Equivalent, or (ii) Lower Operating Limit, through a combination of scheduling or Bidding in the Day-Ahead Market, or in accordance with the notification procedure below such that the amount scheduled, bid, or declared to be unavailable reflects the entire withdrawal to injection operating range. See the NYISO's *Day-Ahead Scheduling Manual* (available from the NYISO Web site at https://www.nyiso.com/manuals-tech-bulletins-user-guides) and *Market Participants User Guide* (available from the NYISO Web site at https://www.nyiso.com/manuals-tech-bulletins-user-guides) for scheduling and bidding procedures.

Prior to the Capability Year that begins May 1, 2024, Generators and System Resources that have an Energy Duration Limitation, pursuant to Section 5.12.14 of the *NYISO Services Tariff*, must on a daily basis during the applicable Peak Load Window as determined in accordance with Section 4.1.1 of this *ICAP*

Manual, and for the number of consecutive hours that correspond to its Energy Duration Limitation, or for the entirety of the Peak Load Window for an Energy Storage Resource: (i) schedule a Bilateral Transaction; (ii) Bid Energy in the Day-Ahead Market in accordance with the applicable provisions of Section 5.12.1 of the *NYISO Services Tariff*; or (iii) notify the ISO of any outages. Energy Storage Resources with an Energy Duration Limitation must, on a daily basis, and for each hour outside of the Peak Load Window: (i) Bid in the Day-Ahead Market in accordance with the applicable provisions of Section 5.12.1 of the *NYISO Services Tariff*; or (ii) notify the ISO of any outages, the maximum of the Energy Storage Resource's (a) negative Installed Capacity Equivalent, or (b) Lower Operating Limit. The amount scheduled, Bid, and/or declared to be unavailable must reflect the Energy Storage Resource's entire withdrawal operating range.

Starting with the Capability Year that begins May 1, 2024, Generators, Energy Storage Resources, and System Resources that have an Energy Duration Limitation less than or equal in length to the number of hours comprising the applicable Peak Load Window must, on a daily basis during the Peak Load Window and for at least the number of consecutive hours that correspond to its Energy Duration Limitation, or for the entirety of the Peak Load Window for an Energy Storage Resource: (i) schedule a Bilateral Transaction; (ii) Bid Energy in the Day-Ahead Market in accordance with the applicable provisions of Section 5.12.1 of this Tariff; or (iii) notify the ISO of any outages. Generators, Energy Storage Resources, and System Resources that have an Energy Duration Limitation greater in length than the number of hours comprising the Peak Load Window must, on a daily basis during the entirety of the Peak Load Window and for additional hours immediately preceding and following the Peak Load Window covering the remaining hours of its Energy Duration Limitation that are not captured in the Peak Load Window,: (i) schedule a Bilateral Transaction; (ii) Bid Energy in the Day-Ahead Market in accordance with the applicable provisions of Section 5.12.1 of this Tariff; or (iii) notify the ISO of any outages. The number of additional hours both preceding and following the Peak Load Window for which this obligation applies shall be determined by subtracting the length of the Peak Load Window from the Resource's Energy Duration Limitation and dividing the result by two.

- For example, if the applicable Peak Load Window is HB 13 through HB 18 and the Generator, Energy Storage Resource, or System Resource has an 8-hour Energy Duration Limitation then the Energy Duration Limitation exceeds the length of the Peak Load Window by two hours, so the obligation will begin one hour before the start of the Peak Load Window and will end one hour after the Peak Load Window ends. Thus, the Generator, Energy Storage Resource, or System Resource must be able to provide, and produce if scheduled, the Installed Capacity Equivalent of the amount of Unforced Capacity they are supplying to the NYCA during HB 12 through HB 19.

In addition, Energy Storage Resources that have an Energy Duration Limitation less than or equal in length to the number of hours comprising the Peak Load Window must, on a daily basis, and for each hour beyond the Peak Load Window: (i) Bid in the Day-Ahead Market in accordance with the applicable provisions of Section 5.12.1 of this Tariff; or (ii) notify the ISO of any outages, the maximum of the Energy Storage Resource's (a) negative Installed Capacity Equivalent, or (b) Lower Operating Limit. Energy Storage Resources that have an Energy Duration Limitation greater in length than the number of hours comprising the Peak Load Window must, on a daily basis, and for each of the hours beyond the hours that the Energy Storage Resources must schedule, bid, or declare to be unavailable in accordance with paragraph three of Section 4.8.1 of this ICAP Manual: (i) Bid in the Day-Ahead Market in accordance with the applicable provisions of Section 5.12.1 of the NYISO Services Tariff or (ii) notify the ISO of any outages, the maximum of the Energy Storage Resource's (a) negative Installed Capacity Equivalent, or (b) Lower Operating Limit. The amount scheduled, Bid, and/or declared to be unavailable must reflect the Energy Storage Resource's entire withdrawal operating range.

For any hour of any day that the Installed Capacity Supplier cannot provide the full amount of Energy associated with its Installed Capacity Equivalent, due to maintenance or forced outage, the supplier must notify the NYISO Operations department in accordance with the *Outage Scheduling Manual* (available from the NYISO Web site at https://www.nyiso.com/manuals-tech-bulletins-user-guides).

4.8.2. Energy Limited and Capacity Limited Resources

Energy and Capacity Limited Resources that are Installed Capacity Suppliers must be able to provide the Installed Capacity Equivalent of the amount of Unforced Capacity they are supplying to the NYCA as well as conform to all of the requirements of Attachment M to this *ICAP Manual*.

Prior to the Capability Year that begins May 1, 2024, Energy Limited Resources must be able to provide, and provide if scheduled, the Installed Capacity Equivalent of the amount of Unforced Capacity they are supplying to the NYCA for a minimum of the number of consecutive hours that correspond to its Energy Duration Limitation during the applicable Peak Load Window as determined in accordance with Section 4.1.1 of this ICAP Manual. Capacity Limited Resources must Bid or schedule in the Day-Ahead Market each day in such a way as to enable the NYISO to schedule them for the period in which they are capable of providing the Energy. See Attachment M to this *ICAP Manual* for additional details on qualifying Energy/Capacity Limited Resources and bidding and scheduling procedures for these resources.

Starting with the Capability Year that begins May 1, 2024, an Energy Limited Resource with an Energy Duration Limitation less than or equal in length to the number of hours comprising the applicable Peak Load Window must, on a daily basis be able to provide, and provide if scheduled, the Installed Capacity

Equivalent of the amount of Unforced Capacity the Energy Limited Resource is supplying to the NYCA during the Peak Load Window and for at least the number of consecutive hours that correspond to the Energy Limited Resource's Energy Duration Limitation. An Energy Limited Resource with an Energy Duration Limitation greater in length than the number of hours comprising the applicable Peak Load Window must, on a daily basis be able to provide, and provide if scheduled, the Installed Capacity Equivalent of the amount of Unforced Capacity the Energy Limited Resource is supplying to the NYCA during the entirety of the Peak Load Window and for additional hours immediately preceding and following the Peak Load Window covering the remaining hours of the Energy Limited Resource's Energy Duration Limitation that are not encompassed in the Peak Load Window. The number of additional hours both preceding and following the Peak Load Window for which this obligation applies shall be determined by subtracting the length of the Peak Load Window from the Resource's Energy Duration Limitation and dividing the result by two.

- For example, if the applicable Peak Load Window is HB 13 through HB 18 and the Energy Limited Resource has an 8-hour Energy Duration Limitation then the Energy Duration Limitation exceeds the length of the Peak Load Window by two hours, so the obligation will begin one hour before the start of the Peak Load Window and will end one hour after the Peak Load Window ends. Thus, the Energy Limited Resource must be able to provide, and provide if scheduled, the Installed Capacity Equivalent of the amount of Unforced Capacity they are supplying to the NYCA during HB 12 through HB 19.

Capacity Limited Resources must Bid or schedule in the Day-Ahead Market each day in such a way as to enable the NYISO to schedule them for the period in which they are capable of providing the Energy. See Attachment M to this *ICAP Manual* for additional details on qualifying Energy/Capacity Limited Resources and bidding and scheduling procedures for these resources.

4.8.3. [This Section intentionally left blank]

4.8.4. Existing Municipally-Owned Generation

Existing municipally-owned generators that qualify as Installed Capacity Suppliers pursuant to Section 5.12.11.2 of the *NYISO Services Tariff* (available from the NYISO Web site at https://www.nyiso.com/regulatory-viewer) and Section 4.13 of this *ICAP Manual* are not required to Bid or schedule in the Day-Ahead Market but will be required to respond to a NYISO request to make available the uncommitted portion of the Installed Capacity Equivalent of the Unforced Capacity they are qualified to supply.

4.8.5. Special Case Resources (Section 4.12 of this *ICAP Manual*)

SCRs are not subject to daily bidding, scheduling, and notification requirements.

For every month in which a SCR supplies Unforced Capacity, the RIP must offer to reduce Load equal to the Installed Capacity Equivalent of the amount of Unforced Capacity the SCR is supplying to the NYCA. The NYISO must receive from the RIP a Minimum Payment Nomination associated with such Unforced Capacity. This Minimum Payment Nomination will act as a strike price, allowing the NYISO to call on a specific amount of SCRs to perform, based on price and NYCA zone in accordance with the NYISO Emergency Operations Manual. The Minimum Payment Nomination will remain in effect through the month and is not subject to change. SCR Minimum Payment Nomination submission procedures are detailed in Section 4.12.3.

A RIP must notify the NYISO if a SCR is not able to provide the full amount of Load reduction associated with the Unforced Capacity that was uploaded to the Demand Response Information System (DRIS) in the enrollment file. See Sections 4.3.3 of this *ICAP Manual*.

4.8.6. Intermittent Power Resources

As set out in Section 5.12.11.4 of the *NYISO Services Tariff* (available from the NYISO Web site at https://www.nyiso.com/regulatory-viewer), Intermittent Power Resources that depend on wind or solar energy as their fuel may qualify as Installed Capacity Suppliers, without having to comply with the daily bidding and scheduling requirements set forth in Section 5.12.7 of the *NYISO Services Tariff*. To qualify as Installed Capacity Suppliers, such Intermittent Power Resources shall comply with the notification requirement of Section 5.12.7 of the *NYISO Services Tariff* by notifying the NYISO of all outages.

4.8.7. Co-Located Storage Resources

As set out in Section 4.2.1.3.2 of the NYISO Services Tariff, Co-located Storage Resources must each submit a CSR injection Scheduling Limit and a CSR withdrawal Scheduling Limit for each hour of the Day-Ahead Market to indicate the expected capability of the relevant facilities. An Energy Storage Resource that participates in a CSR shall not submit Day-Ahead Market Bids that would Self-Commit the Generator to inject or to withdraw a quantity of Energy that exceeds an applicable CSR Scheduling Limit. These bid values will be used to calculate the Unforced Capacity values for Co-located Storage Resources, as detailed in Section 3.8 of Attachment J of this Installed Capacity Manual.

4.9. External Resources, Imports, Exports and Wheels Through

External Generators, System Resources, Control Area System Resources, and entities purchasing Installed Capacity from them may participate in the NYCA Installed Capacity market. With the exception of those requirements and procedures regarding Summer Transitional Grandfathered Import Rights, External Installed Capacity Suppliers using UDRs or EDRs must comply with the requirements and procedures identified in this section 4.9. Refer to section 4.14 of this *ICAP Manual* for additional Installed Capacity Supplier requirements and procedures associated with the use of UDRs and EDRs.

4.9.1. Requirements to Qualify as an External Installed Capacity Supplier

Prior to supplying Unforced Capacity to the NYCA, External Generators, System Resources, Control Area System Resources and entities purchasing Installed Capacity from them must qualify as External Installed Capacity Suppliers. In addition to satisfying the requirements for External Installed Capacity specified in Section 2.7 of this *ICAP Manual*, to qualify as External Installed Capacity Suppliers such entities must provide the following information to the NYISO:

1. Name and location of the Resource (if multiple units are involved, identify each unit);
2. Assurance that the External Control Area in which the Resource is located either:

    a. Will not recall or curtail, for the purposes of satisfying its own Resource Adequacy needs, exports from that External Control Area to the NYCA of an amount of Energy equal to the Installed Capacity Equivalent of the amount of Unforced Capacity that Resource is supplying to the NYCA; or

    b. In the case of Control Area System Resources, will afford NYCA Load the same pro-rata curtailment priority that it affords its own Control Area Load;
3. Documentation of a DMNC test, or its equivalent, in accordance with the procedures found in Section 4.2 or 4.10.3 of this *ICAP Manual*;
4. Submission of Operating Data for the prior 24 months in accordance with Sections 4.4 and 4.4.9, and Attachment K of this *ICAP Manual*;
5. Documentation which satisfies the Maintenance Scheduling Requirements in Section 4.3 of this *ICAP Manual*; and
6. Expected return dates from full or partial outages.
7. Demonstration of deliverability to the NYCA border, pursuant to Section 4.9.3 of this *ICAP Manual*.

8. Execution of the Letter Certifying Contractual Control or External Customer Registration Agreement if the External Installed Capacity Supplier does not own the resource being sold.

All of the information required by this Section 4.9.1 must be in accordance with the *ICAP Manual* sections referenced in the items above, and received by the NYISO not later than the date and time set forth in those sections and as further specified on the ICAP Event Calendar, and at such additional times as required by the NYISO and this *ICAP Manual*.

The NYISO may verify this data with the appropriate External Control Area.

4.9.2. External Capacity Processes and Information

Section 4.9.2.5 shall be in effect for all Capability Periods. Nothing in this Section 4.9.2 shall be construed to prohibit or limit revisions to this *ICAP Manual* or create a precedent for any future changes.

4.9.2.1. [This Section intentionally left blank]

4.9.2.2. [This Section intentionally left blank]

4.9.2.3. [This Section intentionally left blank]

4.9.2.4. [This Section intentionally left blank]

4.9.2.5. Allocation of Import Rights

The NYISO establishes the maximum amount of External Installed Capacity that may be imported to the NYCA from each neighboring External Control Area for the upcoming Capability Year according to the procedures in Section 2.7 of this *ICAP Manual* and consistent with the modeling of the Installed Reserve Margin. The NYISO then sets the Import Rights limit at the amount of External Installed Capacity that is deliverable to the NYCA across any individual External Interface and across all of those External Interfaces taken together (collectively, the “NYCA Interface") consistent with the procedures in Section 4.9.2.5.2 of this *ICAP Manual*. The NYISO shall make such Import Rights, up to and including, but not exceeding, the Import Rights limit for the NYCA interface, available for allocation to Market Participants, after identifying the portion of the NYCA interface amount that is available at each individual External Interface. The NYISO will make the Import Rights available to Market Participants through the first-come, first-served (FCFS) Import Right request and allocation process, and if any are remaining thereafter, through the opportunity to offer Unforced Capacity from an External Control Area across an External Interface into an Installed Capacity auction.

4.9.2.5.1. New York State Electric & Gas Corporation, Inc. ("NYSEG") Existing Transmission Capacity for Native Load ("ETCNL")

New York State Electric & Gas Corporation, Inc. (NYSEG) shall notify the NYISO in writing of its election to use a specified quantity of its Existing Transmission Capacity for Native Load (ETCNL) for each month of the upcoming Capability Period. This notification must be received by the NYISO prior to the fifteenth calendar day before the date on which the NYISO will first receive FCFS Import Right requests for the upcoming Capability Period, as identified by the ICAP Event Calendar.

4.9.2.5.2. Annual External Installed Capacity Deliverability Test for the Upcoming Capability Year

The NYISO will complete the annual External Installed Capacity deliverability test for the upcoming Capability Year prior to the date on which the NYISO will first receive FCFS Import Right requests for the upcoming Summer Capability Period, as identified by the ICAP Event Calendar. The deliverability test will determine the amount of Import Rights that are deliverable across any individual External Interface and for the NYCA Interface for the upcoming Capability Year. In the deliverability test, the NYISO will model the ETCNL quantities set forth in the NYSEG notice, all External CRIS Rights (ECRs), and External-to-ROS Deliverability Rights (EDR) as deliverable. The deliverability test will determine the MW amount of headroom remaining on a set of internal interfaces. If the deliverability test determines that the maximum MW amount of External Installed Capacity determined by the ISO procedures causes the transfer capability across any of a set of internal interfaces to be degraded, then the NYISO will compute shift factors for each External Interface on the internal interface(s) that limit the deliverability of External Installed Capacity.

For each Capability Period, the NYISO will use the maximum allowances for External Installed Capacity to be imported into the NYCA, set forth in Section 4.9.6 of this *ICAP Manual*, and, if necessary, the shift factors computed in the annual deliverability test described in the preceding paragraph to determine the amount of Import Rights that are deliverable at each External Interface individually and simultaneously so that they do not exceed the total for the NYCA Interface.

4.9.2.5.3. FCFS Import Right Request and Allocation Period

FCFS Import Rights may be secured within a FCFS Import Right request and allocation period ("FCFS R&A Period"), on the date identified by the ICAP Event Calendar. The Installed Capacity Supplier that will have the obligation to the NYISO to supply the External Installed Capacity, referred to in this section of the *ICAP Manual* as the "seller", can request the FCFS Import Right in the ICAP AMS and must name the counterparty that will be the purchaser (*i.e.*, the LSE or the Installed Capacity Marketer that is not an

Affiliate of the seller), referred to in this section of the *ICAP Manual* as the "buyer". A FCFS Import Right request shall only be received by the NYISO in the ICAP AMS and only within the applicable FCFS Request Period. Any request that is sent to or received by the NYISO by any other means or that is received outside of such applicable FCFS Request Period will not be a valid FCFS Import Right request and shall not be considered for allocation of Import Rights. A FCFS Import Right request must be backed by a written and duly authorized bilateral transaction. FCFS Import Rights can only be used to supply External Unforced Capacity to satisfy an LSE's NYCA Minimum Unforced Capacity Requirement.

Prior to each Capability Period Auction and as identified by the ICAP Event Calendar, the NYISO will open a FCFS Import Right R&A Period for all months within the upcoming Capability Period. The FCFS R&A Period will open not more than thirty (30) days prior to the Capability Period Auction. Prior to each Monthly Auction, the NYISO will open a FCFS R&A Period for any or all months remaining in the Capability Period for which the certification deadline has not passed and Import Rights remain available. After the Monthly Auction results are posted, and prior to the close of the certification period each month, the NYISO will open a FCFS R&A Period for any or all months remaining in the Capability Period for which Import Rights remain available.

If there is a change to the MW amount of remaining available Import Rights following the completion of each FCFS R&A Period, or after the posting of results for each Capability Period and Monthly Auction, the remaining available Import Rights will be posted in the ICAP AMS.

4.9.2.5.3.1. FCFS Import Right Request Period and Confirmation Period

Within each FCFS R&A Period, the NYISO will open a FCFS Import Right Request Period for one business day, as identified in the ICAP Event Calendar. On the following business day, the NYISO will open a FCFS Import Right Confirmation Period for one business day, and within the timeframe shown in the ICAP Event Calendar a buyer must confirm the FCFS Import Right requests to which they are a counterparty. If the buyer does not confirm the Imports Rights request in accordance with this section, the Imports Right request will be invalid and there will be no further opportunity to confirm that FCFS Imports Right request.

4.9.2.5.3.1.1. Seller Requests for FCFS Import Rights

The system clock of the ICAP AMS will govern the begin time and end time of each event within the FCFS R&A Period. For each FCFS R&A Period, the ability of the ICAP AMS to receive requests shall only be enabled at the begin time of 8:00:00 A.M. Eastern time as determined by the system clock of the ICAP AMS. At the end of FCFS Request Period shown in the ICAP Event Calendar, the ability of the ICAP AMS to receive requests shall be disabled.

A clock displaying Eastern time (EST/EDT) in hours, minutes, and seconds (HH:MM:SS) is visible on the NYISO website for convenience only and does not govern the FCFS R&A Period. The ICAP AMS clock governs the beginning and end of the FCFS Request Period.

FCFS Import Right requests in the ICAP AMS may be a single request or may contain multiple requests for FCFS Import Rights. For those requests (a "group") that contain multiple FCFS Import Right requests, the relative priority of each FCFS Import Right request shall be defined by the descending order of the request records in the ICAP AMS (*i.e.*, the first request record shall have the highest relative priority). The relative priority order of individual FCFS Import Right requests in a group cannot be modified by the seller in the ICAP AMS once the request is received in the ICAP AMS.

FCFS Import Right requests (individual or those within a group) may be deleted by the seller in the ICAP AMS within the FCFS Request Period. If the seller deletes a FCFS Import Right request that was within a group, the relative priority of each remaining request in that group of requests will be maintained. The relative priority of FCFS Import Right requests within a group cannot be modified after the requests have been received in the ICAP AMS except by deleting that group of requests, and then recreating the group of requests in the ICAP AMS with a modified relative priority order and during the FCFS Request Period day, as shown in the ICAP Event Calendar.

Each individual FCFS Import Right request (whether individual or within a group) must contain the information enumerated below. If any of the information provided is incomplete or inaccurate, then the individual request or if a group of multiple requests, then all requests in a group, will not be valid and the ICAP AMS will reject them.

Required Information:

1. The seller organization (*i.e.*, Installed Capacity Supplier) that is the supplying party to the bilateral transaction;
2. The buyer organization (*i.e.*, LSE or Installed Capacity Marketer that is not an Affiliate of the seller) that is the purchasing party to the bilateral transaction;
3. The External Control Area in which the qualified External Resource is located;
4. The PTID and name of the qualified External Resource;
5. The Installed Capacity Equivalent MW of Import Rights requested for and the identified month or all months remaining in the Capability Period. (The Installed Capacity Equivalent of the Unforced Capacity offered for sale into the NYCA from the qualified External Resource designated in (4) above is calculated as set forth in *ICAP Manual* Attachment J);

6. E-mail address of the contact for the seller organization to the bilateral transaction in the ICAP AMS that will be associated with the request (which is the address to which the NYISO will send a notice under Section 4.9.2.5.3 of this *ICAP Manual*); and

7. E-mail address of the contact for the buyer organization to the bilateral transaction in the ICAP AMS that will be associated with the request (which is the address to which the NYISO will send a notice under Section 4.9.2.5.3 of this *ICAP Manual*).

The ICAP AMS will permit sellers to create and to "test" a FCFS Import Right request, or group of multiple requests, prior to the beginning of the FCFS R&A Period, for data validation.

4.9.2.5.3.1.2. Buyer Confirmation of FCFS Import Right Requests

The NYISO will open a confirmation period on the business day immediately following the FCFS Request Period as identified by the ICAP Event Calendar. The ICAP Event Calendar will identify the date and time at which FCFS Import Right requests can be confirmed and the date and time after which FCFS Import Right requests cannot be confirmed. The interim period is the "FCFS Confirmation Period". Within a FCFS Confirmation Period, a buyer that is counterparty to a valid FCFS Import Right request may view and shall have the ability to confirm such a request, and in so doing is affirming that the request is supported by the terms of a bilateral contract to which both the seller and buyer are a party. The system clock of the ICAP AMS will govern the begin time and end time of the FCFS Confirmation Period. For each FCFS Confirmation Period, the ability of a buyer to confirm a request shall only be enabled at the begin time of 8:00:00 A.M. Eastern time as determined by the system clock of the ICAP AMS. At the end of time of the FCFS Confirmation Period shown in the ICAP Event Calendar, the ability of the ICAP AMS to confirm a valid FCFS Import Right request shall be disabled.

A clock displaying Eastern time (EST/EDT) in hours, minutes, and seconds (HH:MM:SS) is visible on the NYISO website for convenience only and does not govern the start time for the FCFS Confirmation Period. The ICAP AMS clock governs the FCFS Confirmation Period.

A FCFS Import Right request must be in a buyer-confirmed state in the ICAP AMS at the occurrence of the end time of the FCFS Confirmation Period in order to be to be prioritized by the NYISO for possible allocation of Import Rights. A FCFS Import Right request that is in an unconfirmed state (*i.e.*, not confirmed by the buyer) in the ICAP AMS at the occurrence of the end time of the confirmation period will be automatically rejected.

4.9.2.5.3.2. Prioritization and Allocation of FCFS Import Right Requests

The NYISO will notify requestor(s) of the priority of their FCFS Import Right request(s) on the business day immediately following the FCFS Confirmation Period, as identified by the ICAP Event Calendar. All FCFS Import Right requests that were valid and that remained in a confirmed state in the ICAP AMS at the occurrence of the end time of the FCFS Confirmation Period shall be assigned a priority, used to allocate FCFS Import Right awards among requesting parties. The priority order shall be the order in which the FCFS Import Right request record was written to the database when it was received in the ICAP AMS *(i.e.*, a request record with an earlier timestamp will be prioritized before a request record with a later timestamp, and likewise with requests that contain a group of requests).

The recorded timestamp of the FCFS Import Right request record and, if the request record was for a group of multiple requests, the relative priority assigned to each request, will be viewable in the ICAP AMS by the seller and buyer organizations that are party to the requests at the deadline shown in the ICAP Event Calendar for the NYISO to notify sellers and buyers of the priority for their FCFS Import Right request.

4.9.2.5.3.2.1. Methodology for Allocation of a FCFS Import Right Request

Prior to a Capability Period Auction, the NYISO will perform the following steps to allocate Import Right awards among valid FCFS Import Right requests that remain in a confirmed state in the ICAP AMS at the end of the FCFS Confirmation Period.

1. The NYISO will prioritize valid and confirmed FCFS Import Right requests and will allocate Import Rights up to and including, but not exceeding, the total amount of External Installed Capacity that has been determined to be deliverable to the NYCA at any individual External Interface or at the NYCA Interface, whichever is more limiting, taking into account the Import Rights awarded to that point and, if necessary, the shift factors computed in the annual External Installed Capacity deliverability test (*i.e.*, such test per Section 4.9.2.5.2 of this *ICAP Manual*). Shift factors will only be taken into account if there is a deliverability constraint found on any of the internal interfaces considered in the annual deliverability test.
2. The NYISO will then recalculate the Capability Period import limit for each External Interface and the NYCA Interface for each month of that upcoming Capability Period which shall be based on the results of the associated FCFS R&A Period that occurred prior to the Capability Period Auction.
    a. For each month remaining in the Capability Period, the available Import Rights remaining after the Capability Period Auction shall be prorated among all External

Interfaces in proportion to the column labeled Remaining (MW) in Section 4.9.6 of this ICAP Manual. In no event shall the Capability Period import limit be greater at an External Interface than the MW quantity set forth in Section 4.9.6. Accordingly, to the extent the prorated amount at an External Interface for a month exceeds the quantity for the External Interface set forth in Section 4.9.6, the Capability Period Import Limit for the External Interface shall be fixed for the month at the limit stated in Section 4.9.6. In such a case, the excess will be reallocated proportionally to the other External Interfaces, provided that the MW amount set forth in Section 4.9.6 for each External Interface may not be exceeded.

b. For the Capability Period Auction, the Import Right limits at all External Interfaces and the NYCA Interface, for all months of the upcoming Capability Period, will be set at the Import Right limits calculated in Subsection 2(a) above, using the month in the Capability Period with the lowest remaining available Import Right limit.

3. For any of the Monthly Auctions or ICAP Spot Market Auctions, and all FCFS Import Rights R&A Periods within a Capability Period, the remaining available Import Right limits at all External Interfaces for any or all months for which the certification deadline has not passed, Import Rights may be allocated up to and including, but not exceeding the amount of the remaining available Import Rights established in Subsection 2(a) above, for the External Interface or for the NYCA Interface.

The NYCA Interface, or an individual External Interface, shall be fully allocated when Import Rights have been allocated up to but not exceeding the amount of the available Import Rights as the result of a FCFS Import Right award or as the result of an Unforced Capacity award in an Installed Capacity Auction.

4.9.2.5.3.3. FCFS Import Right Award

A FCFS Import Right request that has been determined to be valid and that was confirmed may be allocated an Import Right award provided that the remaining available Import Rights established in Section 4.9.2.5.3.2.1(2)(a), for the External Interface or for the NYCA Interface are not to be exceeded. A FCFS Import Right award may be allocated a zero, partial, or full FCFS Import Right award MW amount and, if awarded a MW amount greater than zero, that FCFS Import Right award shall be assigned a FCFS Import Right award bilateral transaction in the ICAP AMS. The seller and buyer that are party to the award will be able to view the resulting FCFS Import Right award bilateral transaction in the ICAP AMS.

4.9.2.5.3.3.1. Limited Opportunity for Award Return if an External Interface or the NYCA Interface is Fully Allocated

The NYCA Interface or an individual External Interface may become fully allocated for any or all months remaining within a Capability Period as the result of a FCFS Import Right award or by an Installed Capacity Auction Import Right award. If that happens prior to the close of certification in a month (*i.e.*, other than if the full allocation occurs as a result of an ICAP Spot Market Auction award(s)), the NYISO will send a notice via email to the email address for each of the buyer and seller organization that were provided with the request in the ICAP AMS (as required under Section 4.9.2.5.3.1.1(6) and (7) of this *ICAP Manual*). The NYISO also will send an email to the NYISO TIE list stating that there is a fully allocated condition. The buyer and seller to the affected FCFS Import Right awards shall have until 5:00:00 P.M. Eastern time, on the later of the business day following the NYISO's issuance of the notice of the fully allocated condition or until the beginning of the certification period for the obligation month of the award (the "Return Deadline"), to return, through utilizing the functionality in the AMS, the full amount of a FCFS Import Right award for the fully allocated Interface for the affected month(s). If there is a fully allocated condition returns of less than the fully amount a FCFS Import Right Award are not permitted. To return an award, first the buyer must un-confirm the awarded request, and then the seller must delete the unconfirmed request. After those steps are both completed, the NYISO will send an email to the NYISO TIE list stating that there has been a return that has resolved the fully allocated condition. If both the buyer and seller do not so act, the obligation remains.

If the NYCA Interface or an individual External Interface remains fully allocated for any or all months remaining within the Capability Period following the Return Deadline, then any FCFS Import Right award bilateral transaction for any fully allocated External Interface, and if the NYCA Interface is fully allocated, all FCFS Import Right awards bilateral transactions, and all Installed Capacity Auction awards for the affected month or months, shall have an obligation to provide the MIS transaction ID number for the FCFS Import Right awards bilateral transactions to the NYISO in the ICAP AMS on or before the deadline identified by the ICAP Event Calendar for providing such MIS transaction ID numbers. If those affected FCFS Import Right award bilateral transactions do not have the MIS transaction ID number entered in the ICAP AMS for the obligation month(s) of the full allocation, then the buyer will not be credited with the Unforced Capacity for such month(s) and Unforced Capacity shall automatically be purchased on its behalf in that month's ICAP Spot Market Auction. Additionally, the Unforced Capacity MW amount of that obligation will be automatically offered into that month's ICAP Spot Market Auction from the External Resource PTID designated in the request, at an offer price of $0.00/kW-mo.

If the fully allocated condition occurs for a month as the result of an Import Right award in the Capability Period Auction or a Monthly Auction, then the notification and Return Period described above, which is available only to FCFS Import Right awards and not Installed Capacity Auction awards, will be the schedule established by the ICAP Event Calendar for the next following FCFS Import Right R&A Period for that month in which the fully allocated condition exists.

If the fully allocated condition occurs for a month as the result of an Import Right award in the ICAP Spot Market Auction, there will not be a notification and Return Period. The outcome of the ICAP Spot Market Auction is posted in the AMS and the monthly ICAP Market Report is posted on the NYISO website. All ICAP Spot Market Auction awards of imports rights shall have an obligation to provide the MIS transaction ID number to the NYISO in the ICAP AMS on or before the deadline identified by the ICAP Event Calendar for providing such MIS transaction ID numbers. If an MIS transaction ID number is not entered in the ICAP AMS for the obligation month(s) the Installed Capacity Supplier shall be subject to sanctions and penalties provided under the Services Tariff.

4.9.2.5.3.3.2. Returns if an External Interface or the NYCA Interface is Not Fully Allocated

If the NYCA Interface or an individual External Interface(s) is not fully allocated for the month, either as a result of a FCFS Import Right award bilateral transactions or an Import Right award in the Capability Period Auction or Monthly Auction, then FCFS Import Right award bilateral transactions shall have no obligation to support the import of Unforced Capacity. If both the seller and buyer take the actions described in Section 4.9.2.5.3.3.3 of this *ICAP Manual* in the prescribed period, they can return in the ICAP AMS either a partial or full FCFS Import Right award bilateral transaction.

4.9.2.5.3.3.3. Certification of a FCFS Import Right Award Bilateral Transaction

A seller that has been awarded a FCFS Import Right and has been assigned a bilateral transaction in the ICAP AMS must certify its Unforced Capacity to the NYISO in the ICAP AMS no later than the deadline for providing MIS transaction ID numbers (as set forth in Section 4.9.3 of this *ICAP Manual*) and monthly certification as detailed below and as identified by the ICAP Event Calendar.

Certification of FCFS Import Right award bilateral transactions is completed in the AMS by the seller re-confirming the transaction during the obligation month's open certification period (*i.e.*, in the calendar month prior to the obligation month). The buyer that is the counterparty to the transaction does not have an affirmative obligation but must not un-confirm the transaction for that same obligation month and during the same open certification period.

If the seller does not certify Unforced Capacity, including providing an MIS transaction number, associated with the FCFS Import Right award bilateral transaction to the NYISO in the ICAP AMS prior to

the deadline for monthly certification, then the buyer will not be credited with the Unforced Capacity and Unforced Capacity shall automatically be purchased on its behalf in the Spot Market Auction for the affected month(s), and the External Resource PTID for such a bilateral transaction will not be allocated that amount of Unforced Capacity that is associated with the uncertified FCFS Import Right award bilateral transaction.

In the case where the FCFS Import Right award bilateral transaction occurred that fully allocated either an External Interface or the NYCA Interface, as shown in the ICAP AMS at the deadline for returns of awards, and remains uncertified at the close of the certification period, any uncertified FCFS Import Right award bilateral transactions at that External Interface or at the NYCA Interface are voided, and the buyer(s) will have the equivalent UCAP purchased on their behalf in the ICAP Spot Market Auction and the seller's Resource PTID(s) equivalent UCAP MW amount shall be offered into the Spot auction at $0.00/kW-mo.

4.9.2.5.4. External Installed Capacity Sales With Import Rights in Installed Capacity Auction

All purchasers of Unforced Capacity that is located in an External Control Area in an Installed Capacity Auction shall receive the External Installed Capacity Import Rights necessary for that Unforced Capacity to count towards the LSE Unforced Capacity Obligation; consequently, in order to ensure that there are sufficient External Installed Capacity Import Rights available, the NYISO shall limit the amount of Unforced Capacity from any neighboring External Control Area that can be sold in each auction. The restriction described in this Section 4.9.2.5.4 does not apply to External capacity associated with ETCNL, UDRs, External CRIS rights, or External-to-ROS Deliverability Rights.

In each Capability Period Auction, the NYISO shall limit the amount of Unforced Capacity from any neighboring External Control Area that can be sold to the MW amount of External Unforced Capacity that can be provided that satisfies the deliverability requirements in the NYISO's Tariffs and this *ICAP Manual*, less all External Installed Capacity Import Rights that have been previously allocated for that External Control Area under the provisions of Section 4.9.2 of this *ICAP Manual*.

In the Monthly Auctions, the NYISO shall limit the amount of Unforced Capacity from any neighboring External Control Area that can be sold to the MW amount of Import Rights that the NYISO makes available for the Capability Period from that neighboring Control Area and that satisfies the deliverability requirements in the NYISO's Tariffs and this *ICAP Manual*, less the amount of Unforced Capacity purchased in that External Control Area for that month and any remaining months in the Capability Period in preceding Monthly Auctions and the Capability Period Auction, less all External Installed Capacity FCFS

Import Rights awards that have been previously allocated to FCFS Import Right award bilateral transactions for that month and any remaining months in the Capability Period.

In the ICAP Spot Market Auction, the NYISO shall limit the amount of Unforced Capacity from any neighboring External Control Area that can be sold to the amount of Import Rights that the NYISO makes available for the Capability Period from that neighboring Control Area and that satisfies the deliverability test and this *ICAP Manual*, less the amount of Unforced Capacity purchased in that External Control Area for that month in the Capability Period Auction and the preceding Monthly Auctions, less all External Installed Capacity FCFS Import Rights awards that have been previously allocated to support FCFS Import Right award bilateral transactions for that month.

4.9.3. Additional External Installed Capacity Supplier Requirements

4.9.3.1. Certification

Entities that have received External Installed Capacity Import Rights, External CRIS Rights, or that are using UDRs or EDRs to meet NYCA Minimum Unforced Capacity Requirements (and in the case of a UDR, a Locational Minimum Unforced Capacity Requirement) must certify that Unforced Capacity sold to NYCA LSEs has not been sold elsewhere for each month that they intend to supply Unforced Capacity to the NYCA. These External Installed Capacity Suppliers and any Wheel-Through from an External Control Area to another neighboring Control Area must provide the MIS transaction number to the NYISO on or before the date and time specified in the ICAP Event Calendar.

These External Installed Capacity Suppliers and any capacity that is backed by a Wheels Through from an External Control Area to a neighboring Control Area must provide the MIS transaction numbers for those external transactions to the NYISO on or before the date and time specified in the ICAP Event Calendar.

See also Section 4.7 of this *ICAP Manual* for complete information in connection with monthly Installed Capacity Supplier certification requirements. The NYISO will verify this data with the appropriate External Control Area.

4.9.3.2. Deliverability to NYCA Border

Energy associated with Unforced Capacity supplied to the NYCA must be deliverable to the NYCA border or, when using UDRs to the NYCA interface with the UDR transmission facility, or when using EDRs to the NYCA interface over which it creates increased transfer capability; in all instances using the transmission service rules of the relevant External Control Area. For External Installed Capacity associated

with Import Rights, External Installed Capacity Suppliers may secure External Installed Capacity Import Rights during the first-come, first-serve request and allocation process described above with a bilateral agreement, or sell External Unforced Capacity in an NYISO-administered Installed Capacity auction pursuant to the procedures identified in this *ICAP Manual.* For External Installed Capacity associated with UDRs and EDRs, the External Installed Capacity must have a sufficient amount of UDRs or EDRs either owned or under contract for the term of the transaction.

Deliverability of Energy to the NYCA border associated with External Installed Capacity is demonstrated as follows. For External Installed Capacity associated with Import Rights or External CRIS Rights, demonstrate the ability to deliver Energy to the NYCA border, or for External Installed Capacity associated with UDRs, demonstrate delivery of such Energy to the NYCA interface with the UDR transmission facility, and with EDRs, demonstrate delivery of such Energy to the NYCA interface over which it creates increased transfer capability, for the time the Energy may be scheduled in the DAM, included in the real-time market or pursuant to a Supplemental Resource Evaluation ("SRE"), as applicable. External Installed Capacity Suppliers are required to fulfill the requirements set forth in Section 5.12.1.10 of the NYISO *Services Tariff*, otherwise they may be subject to the penalty in Section 5.12.12.2 of the NYISO *Services Tariff*.

In addition, External Installed Capacity must fulfill the following requirements to demonstrate deliverability, as applicable based on the Control Area where the External Installed Capacity Supplier is electrically located. If the NYISO does not receive from the Installed Capacity Supplier documentation that conforms to all requirements or is unable to verify the documentation, then the Installed Capacity Supplier may incur penalties, including those under MST section 5.14.2.1. In order to be eligible to sell capacity for a particular month, External Installed Capacity Suppliers must provide proof of deliverability, in accordance with the following requirements based on the Control Area in which the External Installed Capacity Supplier is electrically located.

i) Installed Capacity Suppliers with capacity import obligations into NYCA from PJM for the month of May 2018 and beyond must provide verifiable documentation confirming firm transmission service for each day of the calendar month of the obligation, for the ICAP equivalent of the capacity import obligation, and containing the information specified in this Section. The Installed Capacity Supplier must provide the firm transmission documentation dated and received by the NYISO on the date of and by the deadline shown in the ICAP Event Calendar (i.e., the date the ICAP Spot Market Auction results are posted on the NYISO's web site.) Documentation must be sent via email to and received at icap_info@nyiso.com, along with the name(s) of the External generator(s) and MIS transaction number(s) for awarded capacity

import obligations by the specified deadline. If the NYISO does not receive from the Installed Capacity Supplier documentation that conforms to all requirements by the deadline or is unable to verify the documentation, then the Installed Capacity Supplier may incur penalties, including those under MST section 5.14.2.1. The firm transmission documentation must contain all of the following information:

(a) Installed Capacity Supplier Name
(b) PJM OASIS Transaction Assignment Reference number
(c) Start Date and Time of Firm Transmission Service
(d) Stop Date and Time of Firm Transmission Service
(e) Firm Transmission Service Source Location
(f) Firm Transmission Service Sink Location
(g) Firm Transmission Service Path Name
(h) MW of Firm Transmission Service Secured

ii) Installed Capacity Suppliers seeking to obtain a capacity import obligation into the NYCA from IESO must provide written and verifiable documentation of IESO's decision regarding the External Installed Capacity Supplier's Capacity Export Request for each Obligation Procurement Period before such External Installed Capacity Supplier may secure a capacity import obligation in the NYISO Installed Capacity market. The Installed Capacity Equivalent of such a capacity import obligation must be less than or equal to the IESO-approved MW amount of the Capacity Export Request for each Obligation Procurement Period. The External Installed Capacity Supplier must provide documentation sufficiently in advance of the applicable auction in order to afford the NYISO adequate time to review this information before the auction is run.

iii) Installed Capacity Suppliers seeking to obtain capacity import obligations into the NYCA from ISO-NE must provide verifiable documentation confirming either of the following:

(a) That the External Installed Capacity Supplier has obtained an approved Export De-List bid in the ISO-NE Forward Capacity Market for a MW amount greater than or equal to the Installed Capacity Equivalent of the capacity import obligation it may seek to obtain during the Obligation Procurement Period; or
(b) That the External Installed Capacity Supplier's Resource is electrically located in an ISO-NE Capacity Zone, excluding resources that are located in a Capacity Zone modeled in ISO-NE for the specific period as:
    (i) an export-constrained Capacity Zone;

(ii) an import-constrained Capacity Zone that is separated from the NYCA capacity zone into which the External Installed Capacity Supplier is seeking to obtain a capacity import obligation by one or more import-constrained or export-constrained Capacity Zones; or

(iii) the Rest-of-Pool Capacity Zone, unless it is adjacent to the NYCA capacity zone into which the External Installed Capacity Supplier is seeking to obtain a capacity import obligation.

The External Installed Capacity Supplier must provide documentation confirming either of the above circumstances sufficiently in advance of the applicable auction in order to afford the NYISO adequate time to review this information before the auction is run. Further, the net of the MW amount of the Resource's Capacity Supply Obligation ("CSO") to ISO-NE subtracted from its Capacity Network Resource Capability ("CNRC") must be greater than or equal to the Installed Capacity Equivalent of the capacity import obligation it may seek to obtain in the Obligation Procurement Period.

4.9.4. Charges Associated with External Unforced Capacity Deficiencies

In accordance with the *NYISO Services Tariff*, if an entity fails to deliver part or all of the Energy associated with External Unforced Capacity it sold in the NYCA (see section 4.9.3) it will be deemed retroactively deficient for such failure. External Installed Capacity Suppliers unable to deliver such Energy to the NYCA border will be assessed the deficiency charge for Unforced Capacity associated with such failure and will be deemed to have been deficient from the last time the External Installed Capacity Supplier "demonstrated" delivery of its Installed Capacity Equivalent ("ICE"), or any part thereof, until it next delivers its ICE or the end of the term for which it certified Unforced Capacity, whichever occurs first, subject to the limitation that any prior lack of demonstrated delivery will not precede the beginning of the period for which the Unforced Capacity was certified.

To the extent an External Installed Capacity Supplier fails to fulfill the requirements for responding to a NYISO Supplemental Resource Evaluation ("SRE") set forth in Section 5.12.1.10 of the *NYISO Services Tariff*, the External Installed Capacity Supplier shall be subject to a deficiency charge calculated in accordance with the formula set forth in Section 5.12.12.2 of the *NYISO Services Tariff*. External System Resources and Control Area System Resources are required to comply with Section 5.12.1.10 of the *NYISO Services Tariff*.

An External Installed Capacity Supplier will not be subject to the penalty in Section 5.12.12.2 of the *NYISO Services Tariff* if it does not deliver in response to an SRE for a reason that is outside the External Installed Capacity Supplier's control. Examples of reasons that may lie outside the control of the External

Installed Capacity Supplier, and thus exempt the External Installed Capacity Supplier from the penalty, include, but are not limited to:

i) A Resource's start-up time is not sufficient to bring the Resource online for the entire time the Energy needs to be scheduled pursuant to the SRE notification.
   (1) However, if the External Resource associated with the transaction is able to operate to partially comply with the SRE request, then the External Installed Capacity Supplier is expected to respond and fulfill the requirements set forth in Section 5.12.1.10 of the *NYISO Services Tariff* consistent with its Resource's capabilities.

ii) An External Resource's operation may aggravate a transmission limitation in the External Control Area causing the import transaction to be curtailed for that reason.
   (1) Failure to secure the necessary transmission service in the neighboring Control Area, including failure to agree to pay congestion costs, will not be excused.

The NYISO will evaluate each case of non-delivery during an SRE request to determine whether the reason was beyond the control of the External Installed Capacity Supplier. The NYISO will also evaluate on a case-by-case basis whether an External Installed Capacity Supplier is eligible for cost recovery due to demonstrated losses incurred in responding to the Supplemental Resource Evaluation. Further detail on cost recovery is available in Section 4.1.8 of the *NYISO Services Tariff.*

4.9.5. Exports - External Sales of NYCA Installed Capacity

Qualified NYCA Installed Capacity Resources that have sold Unforced Capacity to serve LSE obligations in External Control Areas must provide MIS transaction numbers for these exports to the NYISO by the deadline shown in the ICAP Event Calendar (i.e., in the month prior to ICAP export). The NYISO will verify this data with the applicable External Control Area.

Additionally, in order for a Generator located in an Import Constrained Locality to be eligible to export capacity to an External Control Area, the Market Participant for the Generator must provide notice to be received by the NYISO by the deadline in the ICAP Event Calendar, via electronic mail to: ICAP_info@nyiso.com. This notice must contain the following information:

- Name of the Generator
- PTID of the Generator
- Month and year of the export
- The MW amount of ICAP to be exported

- Control Area receiving Export

Capacity from a Generator will not be eligible to be exported if the NYISO does not receive the notice on or before the deadline in the ICAP Event Calendar or if the notice does not contain all required information.

4.9.6. Maximum Allowances for Installed Capacity Provided by Resources Outside the NYCA (Excluding Resources Using UDRs and EDRs)

The maximum Installed Capacity Equivalent of capacity that may be allocated for a NYCA interface is set forth in the tables below and may be reduced in accordance with this *ICAP Manual* Section 4.9.2. These tables will be updated annually based on ISO reliability studies. See Attachment E for a list of Grandfathered contracts. With the exception of UDRs and EDRs, Import Rights will be permitted on a first-come, first-serve basis in accordance with this *ICAP Manual* Section 4.9.2.

For Capability Year 2022-2023, the maximum amount of Installed Capacity that may be allocated for NYCA interfaces is:

Amount of External ICAP Permitted to be Allocated for NYCA Interfaces	Total (MW)	Grandfathered (MW) and CY External CRIS (MW)	Remaining (MW)
	2406	38 (May 1, 2022 – April 30, 2023)	2368 (May 1, 2022 – April 30, 2023)

For Capability Year 2023-2024, the maximum amount of Installed Capacity that may be allocated for NYCA interfaces is:

Amount of External ICAP Permitted to be Allocated for NYCA Interfaces	Total (MW)	Grandfathered (MW) and CY External CRIS (MW)	Remaining (MW)
	2414	38 (May 1, 2022 – April 30, 2023)	2456 (May 1, 2023 – April 30, 2024)

For Capability Year 2022-2023, the maximum amount of Installed Capacity subject to the above limits that may be allocated for NYCA interfaces from each of the following Control Areas is as follows:

Neighboring Control Area	Total (MW)	Grandfathered (MW) and CY External CRIS (MW)	Remaining (MW)
PJM	1146	38	1108
ISO-NE	122	0	122
Ontario	23	0	23
Quebec via Chateauguay	1115	1110[1] May - November 239 December – January 0 February 20 March 914 April	5 May - November 876 December – January 1115 February 1095 March 201 April
Quebec via Cedars	0	0	0

For Capability Year 2023-2024, the maximum amount of Installed Capacity subject to the above limits that may be allocated for NYCA interfaces from each of the following Control Areas is as follows:

Neighboring Control Area	Total (MW)	Grandfathered (MW) and CY External CRIS (MW)	Remaining (MW)
PJM	1138	38	1100
ISO-NE	75	0	75
Ontario	80	0	80
Quebec via Chateauguay	1121	1110 May - October 914 November 0 December – February 20 March 914[2] April	11 –May - October 207 November 1121 December – February 1101 March 207 April
Quebec via Cedars	0	0	0

The amount set forth in the tables immediately above for PJM includes 1080 MW of PJM Import Rights

[1] The MW at Quebec via Chateauguay are subject to Section 25.7.11 of the NYISO OATT Attachment S.

[2] The MW at Quebec via Chateauguay are subject to Section 25.7.11 of the NYISO OATT Attachment S.

[3] CRIS Rights for the HTP scheduled line expired 4/30/2020

which are subject to reservation in accordance with *NYISO Services Tariff* Section 5.12.2 in amounts up to those listed in the *NYISO OATT* Attachment L, Section 18.3, Table 3 (Existing Transmission Capacity for Native Load ETCNL), and includes 1110 MW of External CRIS Rights at the Chateauguay Interface and 38 MW of Grandfathered capacity in the PJM Control Area (as set forth in Attachment E of this *ICAP Manual*).

Unforced Capacity Deliverability Rights (UDRs) awarded, not subject to the above limits or first-come, first-serve Import Rights, are:

Unforced Capacity Deliverability Rights	
Cross Sound Cable (CSC) – New England to Long Island, Zone K	330 MW
Neptune Cable – PJM to Long Island, Zone K	660 MW
Linden VFT – PJM to New York City, Zone J	315 MW
Hudson Transmission Project – PJM to New York City, Zone J	660 MW[3]

External-to-ROS Capacity Deliverability Rights (EDRs) awarded, not subject to the above limits or first-come, first-serve Import Rights, are:

External-to-ROS Deliverability Rights	
Cedars – HQ to Rest-of-state (ROS), Zone D	80 MW

The tables in this Section 4.9.6 do not alter any obligation set forth in this *ICAP Manual.*

4.10. Procedures for Holders of External Capacity Resource Interconnection Service (CRIS) Rights

Obligations of entities holding or seeking to obtain External CRIS Rights are set forth in Sections 25.7.11, 25.9.3, and 25.9.6 of the *NYISO OATT* Attachment S, and Section 5.12.2 of the *NYISO Services Tariff*. An External CRIS Right constitutes a commitment by the requesting entity to supply capacity through a certified bilateral contract and/or Auction capacity. Entities awarded External CRIS Rights are referred to as External CRIS Rights Holders in this *ICAP Manual*.

4.10.1. Specification of Contract and/or Non-Contract Commitment for External CRIS Rights Converted from Grandfathered Import Rights over the Quebec (via Chateauguay) Interface

Entities who have requested to convert Grandfathered Quebec (via Chateauguay) Interface Rights and been awarded External CRIS Rights in accordance with Section 25.7.11.1.4.1 of the *NYISO OATT* Attachment S must provide to the NYISO information specifying the amount of megawatts of Contract and Non-Contract Commitment associated with the awarded External CRIS Right. Specification of the amount of megawatts of Contract and Non-Contract Commitment must be received by the NYISO by the deadline set forth on the ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do). Each request must contain the following information:

1. The identity of the External CRIS Right Holder making the request;
2. The megawatt amount of Contract Commitment, in accordance with Section 25.7.11.1.1 of *NYISO OATT* Attachment S;
3. The megawatt amount of Non-Contract Commitment, in accordance with Section 25.7.11.1.2 of *NYISO OATT* Attachment S;
4. For Contract Commitment or bilateral portion of a Non-Contract Commitment, submission of executed bilateral contract, proof that the External CRIS Rights Holder has ownership or contract control of External Resources to fulfill its bilateral supply contract throughout the Award Period.

The NYISO will respond to requests received for megawatt amounts of Contract and Non-Contract Commitment associated with conversion of Grandfathered Quebec (via Chateauguay) Interface Rights according to the schedule in the detailed ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do). The NYISO will notify the requesting party if its request has been accepted or rejected, with reasons for rejection, if such is the case. A rejection may be based on any of the following:

- Incomplete or inadequate information:
- Requests for megawatt amounts of Contract and Non-Contract Commitment inconsistent with Section 25.7.11.1.1 and/or 25.7.11.1.2;
- If the requesting entity identifies a Contract Commitment or bilateral agreement within a Non-Contract Agreement, late receipt of supporting documentation of bilateral agreements;
- Unqualified External Installed Capacity Resources.

4.10.2. New Awards of External CRIS Rights

Entities who have been awarded External CRIS Rights through a Class Year Deliverability Study in accordance with Section 25.7.11.1.4.2 of the *NYISO OATT* Attachment S must provide to the NYISO information specifying the amount of megawatts of Contract and Non-Contract Commitment associated with the awarded External CRIS Right. New External CRIS Rights will take effect at the start of a Capability Period. Requests for specifying the amount of megawatts of Contract and Non-Contract Commitment must be received by the NYISO according to the ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do). Each request must contain the following information:

1. The identity of the External CRIS Right Holder making the request;
2. The megawatt amount of Contract Commitment, in accordance with Section 25.7.11.1.1 of *NYISO OATT* Attachment S;
3. The megawatt amount of Non-Contract Commitment, in accordance with Section 25.7.11.1.2 of *NYISO OATT* Attachment S;
4. For Contract Commitment or bilateral portion of a Non-Contract Commitment, submission of executed bilateral contract, proof that the External CRIS Rights Holder has ownership or contract control of External Resources to fulfill its bilateral supply contract throughout the Award Period.

The NYISO will respond to requests received for megawatt amounts of Contract and Non-Contract Commitment for new awards of External CRIS Rights according to the schedule in the detailed ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do). The NYISO will notify the requesting party if its request has been accepted or rejected, with reasons for rejection, if such is the case. A rejection may be based on any of the following:

- Incomplete or inadequate information:
- Requests for megawatt amounts of Contract and Non-Contract Commitment inconsistent with Section 25.7.11.1.1 and/or 25.7.11.1.2;
- If the requesting entity identifies a Contract Commitment or bilateral agreement within a Non-Contract Agreement, late receipt of supporting documentation of bilateral agreements;
- Unqualified External Installed Capacity Resources.

4.10.3. Renewal of External CRIS Rights

Requirements concerning the renewal of External CRIS Rights are specified in Section 25.9.3 of the *NYISO OATT* Attachment S. Renewals of existing External CRIS Rights will take effect at the start of a Capability Period. On renewal of an existing External CRIS Right, the Supply Failure count is set to zero. Requests for renewal of External CRIS Rights must be received by the NYISO according to the timing specified in Section 25.9.3.2 of the *NYISO OATT* Attachment S. Each request must contain the following information:

1. The identity of the External CRIS Right Holder making the request;
2. The External CRIS Right Number being renewed;
3. The megawatt amount of the External CRIS Right to be renewed;
4. E-mail address of the requesting party to which the NYISO can respond.
5. For Contract Commitment or bilateral portion of a Non-Contract Commitment, submission of executed bilateral contract, proof that the External CRIS Rights Holder has ownership or contract control of External Resources to fulfill its bilateral supply contract throughout the Award Period.

4.10.4. Transfer of External CRIS Rights

Requests for transfer of External CRIS Rights must be received by the NYISO no later than the deadline in the ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do), but in any event no later than the deadline identified in Section 25.9.6 of the *NYISO OATT* Attachment S. Each request must contain the following information:

1. The identity of the External CRIS Right Holder making the request (Transferor);
2. The identity of the NYISO Customer to whom the External CRIS Right is being transferred (Transferee);
3. The External CRIS Right Number from which the transfer is made;
4. Confirmation that the External CRIS Rights are located at the same Interface;
5. The megawatt amount of Contract and/or Non-Contract Commitment External CRIS Right to be transferred, consistent with the provisions of Section 25.7.11.1 of the *NYISO OATT* Attachment S governing the number of MW committed in the Summer and Winter Capability Periods);

6. The Auction Month in which the first offer of External CRIS will be submitted by Transferee;
7. E-mail address of the requesting party to which the NYISO can respond.

In addition, the NYISO must receive from the Transferee of the External CRIS Right information on the type(s) (Contract or Non-Contract Commitment) of External CRIS Right requested in accordance with Section 25.9.6 of the *NYISO OATT* Attachment S. If requesting all or some portion of the External CRIS Right as a Contract Commitment or bilateral agreement within a Non-Contract Commitment, the NYISO must receive from the Transferee an executed bilateral contract, and proof that the holder of External CRIS Rights has ownership or contract control of External Resources to fulfill its bilateral supply contract throughout the Award Period. All External CRIS Rights transfers shall take effect on the first month of the Capability Period subsequent to the date of approval by the NYISO.

Upon receipt of a request for transfer and supporting documentation from the Transferee, the NYISO will notify the requesting party within thirty (30) business days if its request has been accepted or rejected, with reasons for rejection, if such is the case. A rejection may be based on the criteria specified in the *NYISO OATT* Attachment S and for additional reasons such as, but not limited to, the following:

- Incomplete or inadequate information:
- Megawatt amount of transfer greater than existing External CRIS Right;
- If Transferee identifies a Contract Commitment or bilateral agreement within a Non-Contract Agreement, late receipt of supporting documentation of bilateral agreements; or
- Unqualified External Installed Capacity Resources.

When an External CRIS Right is transferred in full or in part to a Transferee, the Transferee does not have to elect the same megawatt amounts of Contract and Non-Contract as elected by the Transferor as part of the existing External CRIS Right. All other terms of the External CRIS Right transfer to the Transferee, including the effective end date.

When an External CRIS Right is transferred in full or in part, the Transferee starts with zero Supply Failures for that External CRIS Right. The Transferor will retain its Supply Failure count and if all or any portion of the External CRIS Right is transferred back to the Transferor at any point in time, the recipient's Supply Failure count will be the same number it was when the recipient transferred the External CRIS Rights.

An External CRIS Right Holder that has sold some or all of the MW associated with the External CRIS Right in future months cannot transfer an amount of External CRIS MW in excess of the unsold amount.

Offers by the Transferor for Auction months subsequent to the transfer date will not count towards satisfying the Transferee's must-offer requirement (as defined in Section 25.7.11.1.2 of the *NYISO OATT* Attachment S).

4.10.5. External CRIS Bilateral Contract Supporting Documentation

The NYISO must receive from holders of External CRIS Rights that have specified an amount of MW of Contract Commitment or Non-Contract Commitment via one or more bilateral agreements, supporting documents on or before the date prior to the Monthly Auction set forth on the ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do).

4.10.6. Non-Contract Commitment Must-offer Requirement

Installed Capacity Suppliers holding megawatt amounts of Non-Contract Commitment that are not associated with bilateral agreements are subject to a must-offer requirement as defined in Section 25.7.11.1.2 of the *NYISO OATT* Attachment S. If offers of megawatt amounts of Non-Contract Commitment are submitted in multiple auctions for the same auction month (including amounts offered in prior months for the then-current auction month), the ICAP equivalent of megawatts required to be offered in that month's ICAP Spot Market Auction will be calculated according to the following rule (with "Strip" meaning the Capability Period Auction):

MW ICAP Spot Market Auction offer requirement = MW External CRIS commitment –

{MW Strip offers + max[0, MW Monthly Auction offers - (MW Strip offers - MW Strip awards)]}

Where:

MW ICAP Spot Auction offer requirement = the amount of MWs required to be offered into the Spot Auction for a particular month;

MW External CRIS commitment = the amount of Non-Contract CRIS MW minus any Non-Contract CRIS MW used to supply bilateral agreements

MW Strip offers = the ICAP Equivalent of MW offered from this Non-Contract Commitment in the Strip Auction (same MW amount offered for each month)

MW Monthly Auction offers = the cumulative ICAP Equivalent of MW offered from this Non-Contract Commitment in Monthly Auctions

MW Strip awards = the ICAP Equivalent of MW sold from this Non-Contract Commitment in the Strip Auction (same MW amount awarded for each month)

As an example, assume a 300 MW Non-Contract Commitment CRIS Right not associated with bilateral agreements. If 100 MW is offered in the Capability Period Auction (of which 60 MW clears), 110 MW is offered in that month's Monthly Auction , the ICAP Spot Market Auction offer requirement would be 130 MW (300 MW commitment - {100 MW Strip offer + [110 MW Monthly Auction offer - (100 MW Strip offer - 60 MW Strip award)]}).

4.10.7. Non-Contract Commitment Offer Cap

Installed Capacity Suppliers holding megawatt amounts of Non-Contract Commitment that are not associated with bilateral agreements are subject to an offer cap in any auction in which part of that commitment is offered. Section 5.12.2.4 of the *NYISO Services Tariff* describes the offer cap.

Section 5.12.2.4.1 of the *NYISO Services Tariff* sets forth the formula for the ISO to compute the internal cap component of the offer cap. The inputs for the internal cap component will depend on the particular auction to which the cap is applied:

- For the Capability Period Auction, and the first Monthly Auction of a Capability Period, the internal cap component will be calculated as 1.1 times the projected clearing price based on the quantity of megawatts identified in data in the NYISO's then-current Load and Capacity Data Report (Gold Book);
- For all ICAP Spot Market Auctions, the internal cap component will be calculated as 1.1 times the projected clearing price for each ICAP Spot Market Auction determined based on the applicable ICAP Demand Curve and the total quantity of Unforced Capacity from all Installed Capacity Suppliers in the NYCA, determined at the certification deadline, for the month associated with the applicable ICAP Spot Market Auction.
- For all Monthly Auctions except the first in a Capability Period, the internal cap component will equal the internal cap component determined for the previous month's ICAP Spot Market Auction (e.g., the internal cap component for the July Monthly Auction would equal the internal cap component computed for the June Spot Market Auction).

The NYISO will post the data used to determine the internal cap component for the Capability Period Auction and the first Monthly Auction of a Capability Period according to the schedule in the ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do).

The internal cap component for all other ICAP auctions will be determined each month after the certification deadline.

Section 5.12.2.4.2 of the *NYISO Services Tariff* defines the External cap component of the offer cap. For External CRIS Rights sourced from PJM, the NYISO will use the most recent annual reconfiguration auction price for the PJM RTO Locational Deliverability Area (LDA) that contains the NYISO Capability Period, as posted on the PJM website at http://www.pjm.com/markets-and-operations/rpm.aspx (or if such web address is no longer applicable, such other location at which PJM makes the information available). For External CRIS Rights sourced from ISO-NE, the NYISO will use the most recent annual reconfiguration auction price for the Rest-of-Pool that contains the NYISO Capability Period, as posted on the ISO-NE website at http://www.iso-ne.com/isoexpress/web/reports/auctions/-/tree/forward-capacity-mkt (or if such web address is no longer applicable, such other location at which ISO-NE makes the information available). For External CRIS Rights sourced from a Control Area in Canada, the NYISO will use the higher of the auction prices from PJM and ISO-NE as identified in accordance with this paragraph. In accordance with Section 5.12.2.4.2 of the *NYISO Services Tariff*, the NYISO will factor in transmission reservation costs associated with providing Installed Capacity. Firm transmission charges imposed in the External market that are required to supply energy are not included in the External cap component.

Installed Capacity Suppliers submitting offers in Monthly Auctions for future months (e.g., submitting offers for June through August in the June Monthly Auction) will be subject to the currently-effective offer cap, which shall be the higher of the internal offer cap and the external offer cap, calculated for the auction month in which the offers are submitted (e.g., the offer cap for the June Monthly Auction would apply in the June Monthly Auction to offers for July and August).

4.10.8. Failure to Meet External CRIS Rights Commitment

External CRIS Rights Holders are subject to offer requirements specified in Section 25.7.11 of the *NYISO OATT* Attachment S. Entities that fail to certify or fail to offer the full amount of Contract or Non-Contract CRIS MW incur a Supply Failure of the terms of the External CRIS Rights award. For each instance of a Supply Failure, Section 25.7.11 of the *NYISO OATT* Attachment S imposes a deficiency charge on the Rights Holder that incurred the Supply Failure.

4.10.9. Termination of External CRIS Rights

When the Supply Failure threshold identified in Section 25.7.11 of the *NYISO OATT* Attachment S is exceeded, that External CRIS Right (both Contract and Non-Contract MWs) will be terminated.

An External CRIS Rights Holder whose Right has been terminated due to exceeding the number of allowable Supply Failures and who has sold Capacity in future Capability Period or Monthly Auctions retains the obligation to supply that Capacity.

Termination of an External CRIS Right will trigger a recalculation of deliverability headroom and resulting monthly Import Right limits using the shift factors determined in the most recent Import Rights Deliverability Study and removing the amount of megawatts of the terminated External CRIS Right that remains unsold for the remainder of the Capability Period.

4.11. System Resources

A System Resource is defined as a portfolio of Unforced Capacity provided by Resources located in a single ISO-defined Locality, the remainder of the NYCA, or any single External Control Area, that is owned by or under the control of a single entity, which is not the operator of the Control Area where such Resources are located, and that is made available, in whole or in part, to the NYISO. System Resources may be External or Internal to the NYCA. Please refer to Section 4.4.3 and Attachment J, Section 3.4, for information regarding Resources operated by the operator of the Control Area in which the Resources are located.

The System Resource must be in a Control Area that either (a) will not recall or curtail transactions from the Resource to satisfy its own Control Area Load, or (b) will afford the NYCA Load the same curtailment priority that it affords its own Control Area Load.

4.11.1. Permissible Aggregations

For the purposes of aggregating System Resources, there are eight defined areas in which Installed Capacity Suppliers may reside. These are:

8. New York City
9. Long Island
10. G-J Locality
11. All other NYCA Load Zones

and the neighboring Control Areas operated by:

12. PJM
13. ISO-NE
14. Quebec
15. Ontario

A single entity may aggregate its Resources located in Load Zones G, H, and I into a portfolio for purposes of entering into System Resource Installed Capacity transactions for the G-J Locality. Within the other seven areas a single entity may aggregate its Generators into a portfolio for the purposes of entering

into System Resource Installed Capacity transactions, so long as all the Generators included in the portfolio reside within the same area. Any entity that wishes to make System Resource sales must provide the required DMNC test data to the NYISO for each Generator in its portfolio, unless that entity can re-dispatch Resources under its control located within an External Control Area to maintain a pre-determined interchange schedule between that Control Area and the NYCA. The Unforced Capacity associated with an External Grandfathered Right may not be aggregated with other Resources as a System Resource.

For example, an owner may operate Generators in PJM and the Long Island Zone. The Generators in PJM may be aggregated or the Generators in the Long Island Zone may be aggregated. Generators in PJM and the Long Island Zone may not be combined with each other.

4.11.2. External System Resources

The NYISO requires the following information for each Resource aggregated as an External System Resource. The entity aggregating the Resources is responsible for the NYISO's receipt of the information.

- Name and location of Generators included in the portfolio.
- Documentation that satisfies the General Requirements for DMNC determination specified in Section 4.2 of this *ICAP Manual*.
- Documentation that satisfies the Maintenance Scheduling Requirements specified in Section 4.3 of this *ICAP Manual*.
- Documentation that satisfies the Operating Data information submission requirements specified in Section 4.4 of this *ICAP Manual*.
- Expected return date from full or partial outages.
- Certification that Unforced Capacity supplied to the NYCA has not been supplied elsewhere.

4.11.3. Control Area System Resources

Control Area System Resources or the purchasers of Unforced Capacity from those Resources shall not be required to conduct DMNC tests and submit DMNC test results to the NYISO. Instead, the NYISO shall calculate a net projected capacity (the "Net Projected Capacity") for each Control Area System Resource based on (1) monthly forecast data submitted by the Control Area System Resource pursuant to this Section (the "Forecast Data"), and (2) the formula set forth below. To calculate the amount of UCAP each Control Area System Resource may supply to the NYCA, the NYISO shall use the formulae provided in Attachment J of this *ICAP Manual*, which adjusts the Net Projected Capacity on the basis of CARL Data submitted monthly by the Control Area System Resource pursuant to Section 4.4.3 of this *ICAP Manual*.

To qualify as ICAP Suppliers, Control Area System Resources or the purchasers of Unforced Capacity from those Resources shall provide Forecast Data in a form acceptable to the NYISO on or before the date and time specified and in compliance with the requirements set forth in Section 4.2 of this *ICAP Manual*, which are otherwise applicable to the NYISO's receipt of DMNC test results by Generators.

Forecast Data shall cover the period for which Control Area System Resources or purchasers of Unforced Capacity from those Resources want to supply Unforced Capacity to the NYCA. For example, Control Area System Resources that wish to participate in the 2001-2002 Winter Capability Period Auction shall provide to the NYISO Forecast Data for each of the six (6) months of the 2001-2002 Winter Capability Period on or before the specified date and time. Forecast Data for a Control Area System Resource providing Installed Capacity from Control Area c shall include the following information for each month m for which that Control Area System Resource (or purchaser of Capacity from such resource) wishes to provide Installed Capacity:

1. Total forecasted maximum generating Capacity in the Control Area c during month m (without any adjustments for External firm Capacity purchases, or sales, outages and maintenance) (CAPcm);
2. External forecasted firm Capacity purchases by Control Area c, other than purchases from Resources in the NYCA during month m (EPcm);
3. The forecasted amount of load management (i.e., interruptible load) in Control Area c during month m (LMcm);
4. Forecasted peak Load for Control Area c during month m, including system losses (PLcm);
5. Forecasted external firm Capacity sales by Control Area c during month m, other than firm Capacity sales to the NYCA (EScm);
6. Forecasted losses, up to the border of the NYCA that would be incurred on transactions corresponding to sales of Unforced Capacity by that Control Area System Resource outside the Control Area (LScm);
7. The amount of generating capacity that is forecasted to be unavailable in Control Area c due to planned maintenance during month m (PMcm); and
8. Planning reserve requirements during month m for the Control Area c corresponding to reserve requirements necessary for this Control Area c to meet NERC Resource Adequacy and applicable reliability council criteria, taking into account all sales of Capacity from this Control Area c (PRcm).

In cases in which any of the above data items is forecasted to vary from hour to hour within a month, the forecasted monthly value submitted for that data item should be the forecasted value of that data item during the peak load hour for that month for Control Area c.

To calculate the Net Projected Capacity of each Control Area System Resource for a specific month, the NYISO shall use the following formula: NPCcm = CAPcm + EPcm + LMcm – PLcm – EScm – LScm – PMcm – PRcm.

Net Projected Capacity shall be used to determine the amount of Unforced Capacity a Control Area System Resource can provide using the equations in Section 3.4 of Attachment J to this *ICAP Manual*.

4.12. Special Case Resources (Sections 5.12.11, 5.12.12, and 5.14.2 NYISO Services Tariff)

SCRs are Demand Side Resources whose Load is capable of being interrupted at the direction of the NYISO, and/or Demand Side Resources that have a Local Generator, which is not visible to the NYISO's Market Information System and is rated 100 kW or higher, that can be operated to reduce Load from the NYS Transmission System and/or the distribution system at the direction of the NYISO. Small customer aggregations may also qualify as SCRs. The Unforced Capacity of a SCR corresponds to its pledged amount of Load reduction as adjusted by historical performance factors (i.e., test and event performance) and as increased by the Transmission District loss factor, as calculated in accordance with Section 4.12.2.1 to this *ICAP Manual*.

A Demand Side Resource may not curtail Critical Electric System Infrastructure Load (as that term is defined in Section 2.3 of the Market Services Tariff) in response to a NYISO-initiated demand response event or test. Demand Side Resources participating in an ISO-administered Demand Response program, including the SCR program, however, may operate a Local Generator to shift the Demand Side Resource's Load off the Grid. Examples of Critical Electric System Infrastructure Load are located at the following link: https://www.nyiso.com/documents/20142/1398619/NYISO-Critical-Electric-System-Infrastructure-Load-Examples-Posting.pdf/7cf5acc9-4be8-1ea1-5426-46cd759fa65b

See Market Administration and Control Area Services Tariff Sections 2.3 and 2.4 for further information.

4.12.1. Claiming of Unforced Capacity and RIPs

The Unforced Capacity of a SCR except a New SCR in a Mitigated Capacity Zone (see Section 4.12.2 below) may be freely sold in Bilateral Transactions. However, such Unforced Capacity may not be claimed by an LSE towards satisfaction of its own LSE Unforced Capacity Obligation or be offered into an auction

administered by the NYISO unless the SCR has enrolled with a RIP and been accepted by the NYISO. RIPs are Market Participants that are bound by the NYISO's tariffs and ISO Procedures, including the notification and other requirements applicable to RIPs under this Section 4.12. RIPs shall be responsible for all forms of communication to and from the NYISO for purposes of Minimum Payment Nomination, notification, dispatch, validation, billing and verification of SCRs and the Unforced Capacity associated with SCRs.

4.12.2. General Requirements

RIPs must comply with the rules applicable to SCRs set forth in the *NYISO Services Tariff* and ISO Procedures, including the obligation to meet the qualifications and comply with the procedures described below.

A RIP must enroll a SCR with the NYISO in accordance with the schedule specified in the ICAP Event Calendar and DRIS Event Calendar, which can be found at the following location on the NYISO Website:

http://icap.nyiso.com/ucap/public/evt_calendar_display.do

In order to enroll SCRs, a RIP must use the Demand Response Information System (DRIS) to import the specified enrollment file.

Prior to enrolling any SCRs, a RIP must register with the NYISO as an ICAP Supplier. The RIP must request enrollment for each SCR in DRIS, obtain a resource identification number for each SCR it enrolls, and subsequently the NYISO must approve the request, before a SCR's enrollment becomes effective and the Unforced Capacity from the SCR can be claimed by an LSE towards its LSE Unforced Capacity Obligation or offered in an auction administered by the NYISO.

Upon the initial enrollment of a SCR, or at any time when an enrollment change is made, the RIP must include as part of the enrollment file uploaded to the DRIS the SCR Aggregation ID to which the SCR is assigned. A RIP may request, in the DRIS, new SCR Aggregation IDs in a specific Load Zone, during the New Aggregation ID Request Period in the ICAP Event Calendar and DRIS Event Calendar. Any request for a new SCR Aggregation ID must be approved by the NYISO.

Interval meters are required of all SCRs, unless the SCRs are part of a small customer aggregation. Such metering must satisfy all requirements of the Metering, Verification, Billing and Settlement Section of the *NYISO Emergency Demand Response Program Manual*, available from the NYISO Web site at https://www.nyiso.com/manuals-tech-bulletins-user-guides Single metering of multiple end-use customers on primary, secondary, or tie-line feeders is prohibited.

The Unforced Capacity of SCRs may only be offered in auctions administered by the NYISO or be claimed by an LSE towards its LSE Unforced Capacity Obligation in whole increments of 100 kW in a Load Zone (e.g., 590 kW of Unforced Capacity would be truncated to 500 kW). However, SCRs may be aggregated into an SCR Aggregation to satisfy this requirement, provided that each such SCR Aggregation is identified as a single block of Unforced Capacity. SCR Aggregations of this type may be used to meet the 100 kW block requirement.

Enrolling SCRs with multiple account numbers located at a single service address

The method of enrollment for SCRs with multiple Transmission Owner or electric service provider account numbers located at a single end-use location (service address) is dependent on the metering configuration and account information of each Demand Side Resource.

Where a single end-use location (service address) has more than one Demand Side Resource with both (i) a unique Transmission Owner or electric service provider account number and (ii) an interval meter, each such Demand Side Resource must be enrolled as a separate SCR.

A single Transmission Owner or electric service provider account number may not be separated into multiple SCRs.

More than one Demand Side Resource located at a single end-use location (service address) may enroll as a single SCR only when:(i) the end-use location is associated with a single legal entity, (ii) each individual Demand Side Resource has a unique Transmission Owner or electric service provider account number, (iii) the individual Demand Side Resources do not have individual interval meters, and (iv) the end-use location does have an interval meter that aggregates all of the associated individual Demand Side Resource Transmission Owner or electric service provider account numbers located at the service address.

Examples:

- A single multi-unit building with multiple account numbers:

  Multiple Demand Side Resources (units) that wish to be a SCR must aggregate to form a single SCR where (i) the Demand Side Resources (units) are associated with a single legal entity, and (ii) the Demand Side Resources (units) do not have individual interval meters but the building does have an interval meter that aggregates all the associated individual Transmission Owner or electric service provider account numbers at the service address.

  Multiple Demand Side Resources (units) that wish to be a SCR may not aggregate to form a single SCR where (i) the Demand Side Resources (units) are associated with a single legal entity, and (ii) the Demand Side Resources (units) each have individual interval meters.

Multiple Demand Side Resources (units) that wish to be a SCR may not enroll as a single SCR where (i) each Demand Side Resource (unit) at the single end-use location is separately owned, regardless of the end-use location's type of metering because, although there is one end-use location, each unique account number is associated with a separate legal entity.

- A commercial retail chain with multiple end-use locations and account numbers:

  Each individual end-use location that wishes to be a SCR must be enrolled separately as a single SCR using its unique Transmission Owner or electric service provider account number because, despite common ownership, the stores are not at a single end-use location.

  (*The examples above are provided only to demonstrate potential application of enrollment requirements. The examples do not limit application of the requirements discussed above.*)

  All unique Transmission Owner or electric service provider account numbers aggregated into a single SCR must be provided to the NYISO using the "Enrolling Multiple Account Numbers" form located on the NYISO website at:

  https://www.nyiso.com/demand-response RIPs are required to submit the form each time the enrollment of such SCRs is requested in DRIS. The NYISO must receive the completed form via electronic mail (at SCR_Registration@nyiso.com) by the SCR enrollment deadline as specified in the ICAP and DRIS Event Calendar.

Assignment of Performance Factors

The NYISO will assign performance factors as follows:

For a RIP enrolled in the SCR program in the Prior Equivalent Capability Period, the RIP performance factor for the current Capability Period shall be computed by the NYISO in accordance with Section 4.12.2.1.3 of this *ICAP Manual.*

For a RIP that did not participate in the SCR program in the Prior Equivalent Capability Period the RIP shall be assigned the SCR program performance factor for the current Capability Period as computed by the NYISO in accordance with Section 4.12.2.1.4 of this *ICAP Manual*.

For an individual SCR that was not enrolled in the SCR program in either the Prior Equivalent Capability Period or the Capability Period preceding the Prior Equivalent Capability Period, the SCR shall be assigned the performance factor of the RIP that enrolls the SCR in the current Capability Period.

The NYISO shall compute a separate SCR Aggregation performance factor, in accordance with Section 4.12.2.1.5 of this *ICAP Manual,* that recognizes over-performance by one SCR to compensate for under-

performance by another SCR in the same SCR Aggregation in the same hour. The minimum hourly performance of an individual SCR shall be zero (0). SCRs may be transferred from one SCR Aggregation to another SCR Aggregation within a RIP's portfolio during the Aggregation Management period as specified in the ICAP Event Calendar and DRIS Event Calendar. Following the Aggregation Management period, the NYISO shall recalculate the SCR Aggregation performance factor for each SCR Aggregation.

Small Customer Aggregations

The NYISO will also allow participation by aggregations of small customers using alternative metering and performance measurement subject to the procedures and limitations set forth in the *NYISO Emergency Demand Response Program Manual* (available from the NYISO Web site at the following URL: https://www.nyiso.com/manuals-tech-bulletins-user-guides, except that the total of all such aggregations for SCRs shall not exceed 100 MW. Each small customer aggregation will be reviewed by the NYISO staff and the Installed Capacity Working Group, and must be approved by at least four of the Chairs and Vice-Chairs of the Management Committee and the Business Issues Committee and the Chairs of the Installed Capacity Working Group and Price Responsive Load Working Group. The RIP shall report the performance of each small customer aggregation (each aggregation separate from any other aggregation and separate from resources not in the aggregation) directly into the DRIS, using an import file formatted as specified in the *NYISO DRIS User's Guide*. The RIP shall provide additional documentation to verify performance as requested by the NYISO.

New SCR in a Mitigated Capacity Zone

A SCR's request to enroll must be accepted by the NYISO before the enrollment is effective. Once accepted, a SCR that is enrolled for the first time in the NYISO's SCR program is a new SCR. A new SCR that has been enrolled in a Mitigated Capacity Zone is subject to the NYISO's buyer side mitigation rules. If a RIP fails to provide SCR data that the ISO needs to conduct the calculation, the SCR will cease to be eligible to offer or sell Installed Capacity. Unless determined to be exempt by the NYISO, a new SCR enrolled in a Mitigated Capacity Zone shall be subject to an Offer Floor, in accordance with Section 23.4.5.7.5 of the *NYISO Services Tariff,* beginning with the month of its initial offer to supply Installed Capacity, and until its offers of Installed Capacity have been accepted in the ICAP Spot Market Auction at a price at or above its Offer Floor for a total of twelve (12), not necessarily consecutive, months, regardless of its RIP. Offer Floors shall be adjusted annually in accordance with Section 23.4.5.7 of the *NYISO Services Tariff*.

SCRs that are subject to an Offer Floor are eligible to only be offered in the ICAP Spot Market Auction. UCAP from SCRs that are subject to an Offer Floor may not be used to cover UCAP offered in a Capability

Period Auction, Monthly Auction, or through a Bilateral Transaction. If a SCR that is subject to an Offer Floor is included in UCAP certified for a Capability Period Auction or Monthly Auction sale, or through a Bilateral Transaction certified by both parties to the transaction, the amount of UCAP attributable to this SCR will constitute a shortfall.

SCRs with Local Generators

SCRs that participate with a Local Generator must enroll as either response type B or response type G resources, as defined in the *NYISO DRIS User's Guide*, as required by the metering configuration of the SCR and the Local Generator. By enrolling a SCR that participates with a Local Generator, the RIP is certifying to the NYISO, on behalf of itself and the SCR, that the SCR has obtained all necessary regulatory approvals for the Local Generator to operate for the purposes of reducing the Load being supplied from the NYS Transmission System and/or distribution system during all NYISO initiated performance tests and events.

SCRs that use Local Generators that are operating to fully serve their Load do not qualify for participation in the SCR program. A Local Generator that is normally operating to partially serve its Load may participate in the program with any additional generation that is available to operate at the direction of the NYISO in order to reduce the remaining Load being supplied from the NYS Transmission System and/or distribution system. In no instance shall a Local Generator participate in the SCR program at a level that exceeds the SCR's applicable ACL baseline that was used for enrollment in the program.

A SCR that supplies Load reductions solely through the use of a Local Generator and that elects to measure such Load reductions by metering the output of such Local Generator in accordance with Section 4.12.2.1 of this *ICAP Manual* shall report to the NYISO performance test and event data, as specified in Section 4.12.4.8 of this ICAP Manual. A SCR that supplies Load reductions solely through the use of a Local Generator and that elects to measure such Load reductions by metering the output of such Local Generator in accordance with Section 4.12.2.1 of this *ICAP Manual* must only report the amount of generation that reduces Load from the NYS Transmission System and/or distribution system during an event or test as the performance of the SCR.

SCR Response Type for enrollment in DRIS

A RIP must identify a "Response Type" for each SCR it enrolls in DRIS based upon: (i) how the SCR will reduce its Load during a NYISO initiated performance test or event; and (ii) the meter configuration of the SCR's facility. Each SCR must be enrolled as: Response Type C (Curtailment), Response Type G (Generation), or Response Type B (Both).

A SCR must enroll as Response Type C when it reduces the Load supplied by the NYS Transmission System and/or distribution system during a NYISO initiated performance test or event only by curtailing the facility's Load, and submits the entire facility's net meter data as evidence of Load reduction (as specified in Section 5.1.2 of the NYISO's Emergency Demand Response Program ("EDRP") Manual).

A SCR must enroll as Response Type G when it reduces the Load supplied by the NYS Transmission System and/or distribution system during a NYISO initiated performance test or event only by using a Local Generator, and submits the Local Generator's meter data (not entire facility's net meter data) as evidence of Load reduction (as specified in Section 5.1.2 of the NYISO's EDRP Manual).

A SCR must enroll as Response Type B when:

(i) it uses both a Local Generator and curtailment of the facility's Load to reduce the Load supplied by the NYS Transmission System and/or distribution system during a NYISO initiated performance test or event, and submits

(a) the entire facility's net meter data, or

(b) the net of entire facility's Load meter data and Local Generator's meter data as evidence of Load reduction;

or

(ii) it uses only a Local Generator to reduce the Load supplied by the NYS Transmission System and/or distribution system during a NYISO initiated performance test or event, and submits

(a) the entire facility's net meter data, or

(b) the net of entire facility's Load meter data and Local Generator's meter data as evidence of Load reduction.

A SCR enrolled as Response Type G may not change its enrollment to either Response Type B or Response Type C within a single Capability Period. A SCR enrolled with either a Response Type B or a Response Type C may not change its enrollment to Response Type G within a single Capability Period.

4.12.2.1. Determination of ICAP, Performance Factors, UCAP, and Installed Capacity Equivalent of UCAP Sold

A RIP provides the load reduction capability associated with its SCRs as part of a SCR Aggregation. This section describes the procedures used for (1) translating the load reduction capability of a SCR to the ICAP value for the SCR, (2) calculating performance factors for a SCR, SCR Aggregation, RIP, and for the SCR program, (3) determining the UCAP value of the SCR Aggregation to which a SCR is assigned, and (4) determining the Installed Capacity Equivalent of UCAP sold of the SCR.

4.12.2.1.1. SCR ICAP

The ICAP of an individual SCR shall be computed as the applicable enrollment ACL minus the committed maximum demand multiplied by one plus the applicable transmission loss factor. The applicable transmission loss factor is determined, by the NYISO, according to the voltage service level of the SCR reported by the RIP on the SCR enrollment file imported into the DRIS for the Capability Period. The ICAP of an individual SCR is not dependent on the response type enrolled.

The precise formulation is as follows:

$$ICAP_{gm} = \left(ACL_{gm} - CMD_{gm}\right) * (1 + TLF_{gv})$$

Where:

$ICAP_{gm}$ = the Installed Capacity that Resource *g* is qualified to provide in month *m*;

ACL_{gm} = the applicable enrollment ACL, for Resource *g* applicable to month *m*, using data reported in the enrollment file uploaded to DRIS;

CMD_{gm} = the committed maximum demand for Resource *g* applicable to month *m*, using data reported in the enrollment file uploaded to DRIS;

TLF_{gv} = the applicable transmission loss factor for Resource g, expressed in decimal form (i.e., a loss factor of 8% is equal to .08) at voltage level v. The applicable transmission loss factor shall be the loss factor reflected in the relevant TO's then current retail electric rates approved by the PSC and stored in the DRIS for deliveries of Energy at voltage level v by the relevant TO the Resource g.

4.12.2.1.2. SCR Performance Factors

The SCR performance factor for the current Capability Period shall be computed as the performance of the SCR in mandatory events and required tests, in accordance with Section 4.12.4.5 of this *ICAP Manual*, in which the SCR was required to reduce load from the Prior Equivalent Capability Period and the Capability Period immediately preceding the Prior Equivalent Capability Period. This individual SCR performance factor shall be the result of the average of the SCR's adjusted hourly performance factors for each of the SCR's best four consecutive hours in all of its mandatory events and required one-hour tests , in accordance with Section 4.12.4.5 of this *ICAP Manual*. Each adjusted hourly performance factor is the lesser of the raw performance factor or one.

If the SCR was not enrolled in any Capability Period required to calculate the performance factor for the current Capability Period, the SCR shall be assigned the performance factor of the RIP.

Performance Factor for a SCR with Load Curtailment

When the SCR is enrolled with a response type of B or C, as defined in the *NYISO DRIS User's Guide*, the raw hourly performance factor is computed as the hourly capacity reduction of the SCR divided by the applicable ACL of the SCR less the committed maximum demand of the SCR. The minimum hourly raw performance factor of a SCR shall be zero. The hourly capacity reduction is equal to the applicable ACL of the SCR minus the metered Load for the event or test hour. The minimum hourly capacity reduction for an individual SCR shall be zero.

The precise formulation is as follows:

$$SCR\ PF_{BCg} = \frac{\sum_{h \in NLRH_{gbe}} \min\left(\frac{\max(ACL_{gh} - ML_{gh}, 0)}{ACL_{gh} - CMD_{gh}}, 1\right)}{NLRH_{gbe}}$$

Where:

SCR PF_{BCg}= the performance factor of the Resource *g* with a response type B or C for the current Capability Period;

ACL_{gh} = the enrollment Net ACL or the Verified ACL, for Resource *g* applicable to hour *h* from the applicable Capability Period, using data reported in the DRIS;

ML_{gh} = the metered Load for Resource *g* for hour *h* from the applicable Capability Period, using data reported in the performance data file uploaded to DRIS;

CMD_{gh} = the committed maximum demand for Resource *g* applicable to hour *h* from the applicable Capability Period, using data reported by the RIP in the enrollment file uploaded to DRIS;

$NLRH_{gbe}$ = the number of hours from the applicable Capability Period, up to four per mandatory event plus any hour in which Resource *g* was required to demonstrate load reduction as part of one or more performance tests called by the NYISO where, in accordance with Section 4.12.4.5 of this ICAP Manual, the SCR may elect to demonstrate its maximum enrolled megawatt value by relying on its load reduction in a mandatory event hour in lieu of participation in the first performance test;

b = the Capability Period immediately preceding the Prior Equivalent Capability Period in which Resource *g* was enrolled and was obligated to respond to mandatory events and

required tests, in accordance with Section 4.12.4.5 of this ICAP Manual, or the time at which Resource *g* began to serve as a SCR available to reduce load;

e = the most recent Prior Equivalent Capability Period in which Resource *g* was enrolled and was obligated to respond to mandatory events and required tests, in accordance with Section 4.12.4.5 of this ICAP Manual.

Performance Factor for a SCR enrolled with output from a Local Generator

When the SCR is enrolled with a response type of G, as defined in the *NYISO DRIS User's Guide*, the raw hourly performance factor is computed as the hourly capacity reduction of the SCR for the event or test hour divided by the applicable ACL of the SCR less the committed maximum demand of the SCR. The minimum hourly raw performance factor of a SCR shall be zero. The hourly capacity reduction is equal to the metered generator output for the event or test hour. The minimum hourly capacity reduction for an individual SCR shall be zero.

The precise formulation is as follows:

$$SCR\ PF_{Gg} = \frac{\sum_{h \in NLRH_{gbe}} \min\left(\frac{\max(ML_{gh}, 0)}{ACL_{gh} - CMD_{gh}}, 1\right)}{NLRH_{gbe}}$$

Where:

$SCR\ PF_{Gg}$ = the performance factor of the Resource *g* with a response type G for the current Capability Period;

ACL_{gh} = the enrollment Net ACL or the Verified ACL, for Resource *g* applicable to hour *h* from the applicable Capability Period; using data reported in the DRIS;

ML_{gh} = the metered output of the Local Generator, less any output from the generator used to support the load of the SCR in accordance with Section 4.12.2 of this *ICAP Manual* subheading "SCRs with Local Generators", for Resource *g* for hour *h* from the applicable Capability Period, using data reported in the performance data file uploaded to DRIS;

CMD_{gh} = the committed maximum demand for Resource *g* applicable to hour *h* from the applicable Capability Period, using data reported by the RIP in the enrollment file uploaded to DRIS;

$NLRH_{gbe}$ = the number of hours in which Resource *g* was required to reduce load during the applicable Capability Period, up to four per mandatory event plus any hour in which Resource *g* was required to demonstrate load reduction as part of one or more performance tests called by the NYISO, where, in accordance with Section 4.12.4.5 of this ICAP Manual, the SCR may elect to demonstrate its maximum enrolled megawatt value by relying on its load reduction in a mandatory event hour in lieu of participation in the first performance test;

b = the Capability Period immediately preceding the Prior Equivalent Capability Period in which Resource *g* was enrolled and was obligated to respond to mandatory events and required tests, in accordance with Section 4.12.4.5 of this ICAP Manual;

e = the Prior Equivalent Capability Period in which Resource *g* was enrolled and was obligated to respond to mandatory events and required tests, in accordance with Section 4.12.4.5 of this ICAP Manual.

4.12.2.1.3. RIP Performance Factor

The RIP performance factor for the current Capability Period shall be computed as the sum of the proportional declared value of all SCRs that were enrolled by the RIP in the Prior Equivalent Capability Period divided by the sum of the maximum declared value of all SCRs that were enrolled by the RIP in the Prior Equivalent Capability Period. The proportional declared value of an individual SCR is computed as the maximum declared value of the SCR from the Prior Equivalent Capability Period multiplied by the raw performance factor, calculated in accordance with Section 4.12.2.1.2 of this *ICAP Manual*, of the SCR for the current Capability Period. The maximum declared value of an individual SCR shall be set to the greatest declared value from the SCR enrollment in the Prior Equivalent Capability Period.

When more than one RIP has enrolled a SCR in the Prior Equivalent Capability Period, the SCR's performance will be included in the RIP performance factor of the RIP that last enrolled the SCR in the Prior Equivalent Capability Period.

The precise formulation is as follows:

$$RIP\ PF_r = \frac{ProportionalDV_{RIPSCR_g}}{MaxDV_{RIPSCR_g}}$$

Where:

$RIP\ PF_r$= the performance factor of the RIP *r* for the current Capability Period;

$ProportionalDV_{RIPSCRg}$= the sum of the maximum declared value of each Resource *g* enrolled by the RIP in the Prior Equivalent Capability Period multiplied by the corresponding raw

performance factor that is not capped at 1.0 of the Resource g for the current Capability Period;

$MaxDV_{RIPSCRg}$ = the sum of the greatest declared value of each Resource g from its enrollment by the RIP in the Prior Equivalent Capability Period;

4.12.2.1.4. SCR Program Performance Factor

The SCR program performance factor for the current Capability Period shall be computed as the sum of the proportional declared value of all SCRs that were enrolled in the Prior Equivalent Capability Period divided by the sum of the maximum declared value of all SCRs that were enrolled in the Prior Equivalent Capability Period. The proportional declared value of an individual SCR is computed as the maximum declared value of the SCR from the Prior Equivalent Capability Period multiplied by the raw performance factor, calculated in accordance with Section 4.12.2.1.2 of this ICAP Manual, of the SCR for the current Capability Period. The maximum declared value of an individual SCR shall be set to the greatest declared value from the SCR enrollment in the Prior Equivalent Capability Period.

The precise formulation is as follows:

$$ICAP/_{SCR\ PROG\ PF} = \frac{ProportionalDV_{ALLSCR_g}}{MaxDV_{ALLSCR_g}}$$

Where:

ICAP/SCR PROG PF = the performance factor of the SCR program for the current Capability Period;

$ProportionalDV_{ALLSCRg}$ = the sum of the proportional declared values for each Resource g enrolled in the SCR program in the Prior Equivalent Capability Period;

$MaxDV_{ALLSCRg}$ = the sum of the maximum declared value for each Resource g enrolled in the SCR program in the Prior Equivalent Capability Period;

4.12.2.1.5. SCR Aggregation Performance Factor

The SCR Aggregation performance factor is calculated each month, after the close of Aggregation Management as specified in the ICAP Event Calendar and DRIS Event Calendar. The SCR Aggregation performance factor for the current Capability Period and auction month shall be determined using enrollment and hourly event and required test response data, in accordance with Section 4.12.4.5 of this

ICAP Manual, from all SCRs assigned to the SCR Aggregation from the Prior Equivalent Capability Period and the Capability Period immediately preceding the Prior Equivalent Capability Period.

To compute the hourly raw performance of the SCR Aggregation for each hour that the SCRs assigned to the SCR Aggregation were required to reduce load in a mandatory event and required one-hour tests, in accordance with Section 4.12.4.5 of this *ICAP Manual*, from the Prior Equivalent Capability Period and the Capability Period immediately preceding the Prior Equivalent Capability Period, the hourly raw performance of the SCR Aggregation shall be the sum of the capacity reduction value from all SCRs assigned to the SCR Aggregation for the month divided by the difference between the sum of the ACLs and the sum of the CMDs from all of the SCRs assigned to the SCR Aggregation for the month.

The adjusted SCR Aggregation performance factor for each hour is the lesser of the hourly raw performance factor or one. The SCR Aggregation performance factor for the month shall be the result of the sum of the hourly adjusted performance factors during the best four consecutive hours in each mandatory event and one-hour tests, in accordance with Section 4.12.4.5 of this *ICAP Manual*, from the Prior Equivalent Capability Period and the Capability Period immediately preceding the Prior Equivalent Capability Period divided by the total number of hours in which the SCR Aggregation was required to reduce load for the mandatory events, up to a maximum of four consecutive hours per mandatory event, and required one-hour tests, in accordance with Section 4.12.4.5 of this *ICAP Manual*, from the Prior Equivalent Capability Period and the Capability Period immediately preceding the Prior Equivalent Capability Period.

If a SCR assigned to the SCR Aggregation for the current Capability Period was not enrolled in any Capability Period required to calculate the performance factor for the current Capability Period and auction month, the SCR will not be included in the calculation of the SCR Aggregation performance factor.

The precise formulation is as follows:

$$SCR\ Aggregation\ PF_{am} = \frac{\sum_{h \in NLRHabe} \min\left(\frac{\sum_{g \in ah}\left(max\left(ACL_{BCgh} - ML_{BCgh}, 0\right) + max\left(ML_{Ggh}, 0\right)\right)}{\sum_{g \in ah}\left(ACL_{gh} - CMD_{gh}\right)}, 1\right)}{NLRH_{abe}}$$

Where:

SCR Aggregation PF_{am} = the performance factor of the SCR Aggregation *a*, as determined for month *m*;

ACL_{BCgh} = the enrollment Net ACL or the Verified ACL, for the SCR *g* with response type B or response type C assigned to the SCR Aggregation *a*, using data reported in the DRIS l;

ML_{BCgh}= the metered Load for SCR *g* with response type B or response type C assigned to the SCR Aggregation *a* for hour *h*, using data reported in the performance data file uploaded to DRIS;

ML_{Ggh} = the metered output of the Local Generator, less any output from the generator used to support the load of the SCR in accordance with Section 4.12.2 of this *ICAP Manual* subheading "SCRs with Local Generators", for Resource *g* for hour *h* from the applicable Capability Period, using data reported in the performance data file uploaded to DRIS;

ACL_{gh} = the enrollment Net ACL or the Verified ACL, for the SCR *g* assigned to the SCR Aggregation *a*, using data reported in the DRIS;
CMD_{gh} = the committed maximum demand for Resource *g* applicable to hour *h* from the applicable Capability Period, using data reported by the RIP in the enrollment file uploaded to DRIS;

$NLRH_{abe}$ = the number of hours in which Resource *g* was required to reduce load during the applicable Capability Period, up to four per mandatory event plus any hour in which Resource *g* was required to demonstrate load reduction as part of one or more performance tests called by the NYISO, where, in accordance with Section 4.12.4.5 of this ICAP Manual, the SCR may elect to demonstrate its maximum enrolled megawatt value by relying on its load reduction in a mandatory event hour in lieu of participation in the first performance test;

b = the Capability Period immediately preceding the Prior Equivalent Capability Period in which the SCR was enrolled and was obligated to respond to mandatory events and required tests, in accordance with Section 4.12.4.5 of this *ICAP Manual*;

e = the most recent Prior Equivalent Capability Period in which the SCR was enrolled and was obligated to respond to mandatory events and required tests, in accordance with Section 4.12.4.5 of this *ICAP Manual*;

4.12.2.1.6. SCR Contribution to SCR Aggregation UCAP

For SCRs that have a SCR performance factor:

For each Capability Period, prior to the Capability Period that begins May 1, 2024, the UCAP contribution of the SCR to the SCR Aggregation UCAP shall be computed as the calculated ICAP for the SCR multiplied by the SCR Aggregation performance factor and the Duration Adjustment Factor for SCRs.

The precise formulation is as follows:

$$UCAPContr_{gm}^{SCR} = ICAP_{gm}^{Q} * Aggregation\ PF_{am} * Duration\ Adjustment\ Factor_{m}^{SCR}$$

Where:

$UCAPContr^{SCR}_{gm}$ = the Unforced Capacity that Resource *g* is qualified to provide in month *m*, as part of the SCR Aggregation;

$ICAP^{Q}_{gm}$ = the Installed Capacity that Resource *g* is qualified to provide in month, calculated in accordance with Section 4.12.2.1.1 of this *ICAP Manual*;

$Aggregation\ PF_{am}$ = the performance factor of the SCR Aggregation *a* as determined for month *m,* calculated in accordance with Section 4.12.2.1.5 of this *ICAP Manual;*

$Duration\ Adjustment\ Factor^{SCR}_{m}$ = the Duration Adjustment Factor for SCRs as determined for the Capability Year and month m, corresponding to the 4 hour Energy Duration Limitation in accordance with Section 4.1.1 of this *ICAP Manual*;

For each Capability Period, starting with the Capability Period that begins May 1, 2024, the UCAP contribution of the SCR to the SCR Aggregation UCAP shall be computed as the calculated ICAP for the SCR multiplied by the SCR Aggregation performance factor and the Capacity Accreditation Factor (CAF) for SCRs.

The precise formulation is as follows:

$$UCAPContr_{gm}^{SCR} = ICAP_{gm}^{Q} * AggregationPF_{am} * CAF_{m}^{SCR}$$

Where:

$UCAPContr_{gm}^{SCR}$ = the Unforced Capacity that Resource *g* is qualified to provide in month *m*, as part of the SCR Aggregation;

$ICAP_{gm}^{Q}$ = the Installed Capacity that Resource *g* is qualified to provide in month *m,* calculated in accordance with Section 4.12.2.1.1 of this *ICAP Manual*;

$AggregationPF_{am}$ = the performance factor of the SCR Aggregation *a* as determined for month *m,* calculated in accordance with Section 4.12.2.1.5 of this *ICAP Manual;*

CAF_m^{SCR} = the applicable Capacity Accreditation Factor (CAF) for an Installed Capacity Supplier with a 4-hour Energy Duration Limitation as determined for the applicable Capability Year and month *m*, in accordance with Section 7.2 of this *ICAP Manual.*

For SCRs that have been assigned the performance factor of the RIP:

For each Capability Period, prior to the Capability Period that begins May 1, 2024, the UCAP contribution of the SCR to the SCR Aggregation UCAP shall be computed as the calculated ICAP for the SCR multiplied by the performance factor of the RIP and the Duration Adjustment Factor for SCRs.

The precise formulation is as follows:

$$UCAPContr_{gm}^{RIP} = ICAP_{gm}^{Q} * RIP\ PF_{gm} * Duration\ Adjustment\ Factor_m^{RIP}$$

Where:

$UCAPContr^{RIP}_{gm}$ = the Unforced Capacity that Resource *g* is qualified to provide in month *m*, as part of the SCR Aggregation;

$ICAP^{Q}_{gm}$ = the Installed Capacity that Resource *g* is qualified to provide in month *m,* calculated in accordance with Section 4.12.2.1.1 of this *ICAP Manual*;

$RIP\ PF_{gm}$ = the performance factor of the RIP *g* for month m, calculated in accordance with Section 4.12.2.1.3 or Section 4.12.2.1.4 of this *ICAP Manual,* as applicable;

$Duration\ Adjustment\ Factor^{RIP}_{m}$ = the Duration Adjustment Factor for SCRs as determined for the Capability Year and month m, corresponding to the 4 hour Energy Duration Limitation in accordance with Section 4.1.1 of this *ICAP Manual*.

For each Capability Period, starting with the Capability Period that begins May 1, 2024, the Installed Capacity Equivalent (ICE) for a SCR, for the applicable auction month, shall equal the UCAP sales of the SCR for the auction month divided by the applicable performance factor (i.e. SCR Aggregation performance factor or performance factor for the RIP) and Capacity Accreditation Factor (CAF) for SCRs.

The precise formulation is as follows:

$$UCAPContr_{gm}^{RIP} = ICAP_{gm}^{Q} * RIP\ PF_{gm} * CAF_{m}^{SCR}$$

Where:

$UCAPContr_{gm}^{RIP}$ = the Unforced Capacity that Resource *g* is qualified to provide in month *m*, as part of the SCR Aggregation;

$ICAP_{gm}^{Q}$ = the Installed Capacity that Resource *g* is qualified to provide in month *m,* calculated in accordance with Section 4.12.2.1.1 of this *ICAP Manual*;

$RIP\ PF_{gm}$ = the performance factor of the RIP *g* for month m, calculated in accordance with Section 4.12.2.1.3 or Section 4.12.2.1.4 of this *ICAP Manual,* as applicable;

CAF_{m}^{SCR} = the applicable Capacity Accreditation Factor (CAF) for an Installed Capacity Supplier with a 4-hour Energy Duration Limitation as determined for the applicable Capability Year and month *m*, in accordance with Section 7.2 of this *ICAP Manual*.

4.12.2.1.7. SCR Aggregation UCAP

The SCR Aggregation UCAP, for the applicable auction month shall be computed as the sum of the UCAP contribution to the SCR Aggregation UCAP of each SCR in the SCR Aggregation using the SCR Aggregation performance factor plus the sum of the UCAP contribution to the SCR Aggregation UCAP of each SCR in the SCR Aggregation using the performance factor of the RIP.

The precise formulation is as follows:

$$UCAP_{am}^{Q} = \sum_{am}\left(UCAPContr_{gm}^{SCR}\right) + \sum_{am}\left(UCAPContr_{gm}^{RIP}\right)$$

Where:

$UCAP^{Q}_{am}$ = the Unforced Capacity of that SCR Aggregation *a* is qualified to provide in month *m*;

$UCAPContr^{SCR}_{gm}$ = the Unforced Capacity that Resource *g* is qualified to provide in month *m* using the SCR Aggregation performance factor, as calculated in accordance with Section 4.12.2.1.6 of this *ICAP Manual*;

$UCAPContr^{RIP}_{gm}$ = the Unforced Capacity that Resource *g* is qualified to provide in month *m* using the performance factor for the RIP, as calculated in accordance with Section 4.12.2.1.6 of this ICAP Manual;

4.12.2.1.8. SCR Installed Capacity Equivalent

For each Capability Period, prior to the Capability Period that begins May 1, 2024, the Installed Capacity Equivalent (ICE) for a SCR, for the applicable auction month, shall equal the UCAP sales of the SCR for the auction month divided by the applicable performance factor (i.e. SCR Aggregation performance factor or performance factor for the RIP) and Duration Adjustment Factor for SCRs.

For SCRs included in the SCR Aggregation performance factor, the Installed Capacity Equivalent is equal to:

$$ICE^{SCR}_{gm} = \frac{UCAPContr^{SCR}_{gm}}{AggregationPF_{am} * Duration\ Adjustment\ Factor^{SCR}_{m}}$$

Where:

ICE^{SCR}_{gm} = the Installed Capacity Equivalent that Resource *g* is obligated to deliver in month *m*, at the direction of the NYISO;

$UCAPContr^{SCR}_{gm}$ = the Unforced Capacity sold by Resource *g* in month *m,* using the SCR Aggregation performance factor, as calculated in accordance with Section 4.12.2.1.6 of this *ICAP Manual*;

$AggregationPF_{am}$ = the performance factor of the SCR Aggregation *a*, as determined for month *m*;

Duration Adjustment $Factor^{SCR}_{m}$ = the Duration Adjustment Factor for SCRs as determined for the Capability Year and month m, corresponding to the 4 hour Energy Duration Limitation in accordance with Section 4.1.1 of this *ICAP Manual.*

For each Capability Period, starting with the Capability Period that begins May 1, 2024, the Installed Capacity Equivalent (ICE) for a SCR, for the applicable auction month, shall equal the UCAP sales of the SCR for the auction month divided by the applicable performance factor (i.e. SCR Aggregation performance factor or performance factor for the RIP) and Capacity Accreditation Factor (CAF) for SCRs.

For SCRs included in the SCR Aggregation performance factor, the Installed Capacity Equivalent is equal to:

$$ICE_{gm}^{SCR} = \frac{UCAPContr_{gm}^{SCR}}{AggregationPF_{am} * CAF_{m}^{SCR}}$$

Where:

ICE_{gm}^{SCR} = the Installed Capacity Equivalent that Resource *g* is obligated to deliver in month *m*, at the direction of the NYISO;

$UCAPContr_{gm}^{SCR}$ = the Unforced Capacity sold by Resource *g* in month *m,* using the SCR Aggregation performance factor, as calculated in accordance with Section 4.12.2.1.6 of this *ICAP Manual*;

$AggregationPF_{am}$ = the performance factor of the SCR Aggregation *a*, as determined for month *m*;

CAF_{m}^{SCR} = the applicable Capacity Accreditation Factor (CAF) for an Installed Capacity Supplier with a 4-hour Energy Duration Limitation as determined for the applicable Capability Year and month *m*, in accordance with Section 7.2 of this *ICAP Manual*.

For SCRs assigned the performance factor for the RIP, the Installed Capacity Equivalent for each Capability Period, prior to the Capability Period that begins May 1, 2024, is equal to:

$$ICE_{gm}^{RIP} = \frac{UCAPContr_{gm}^{SCR}}{RIP\ PF_{gm} * Duration\ Adjustment\ Factor_{m}^{RIP}}$$

Where:

ICE^{RIP}_{gm} = the Installed Capacity Equivalent that Resource *g* is obligated to deliver in month *m*, at the direction of the NYISO;

$UCAPContr^{SCR}_{gm}$ = the Unforced Capacity sold by Resource *g* in month *m,* using the performance factor of the RIP, as calculated in accordance with Section 4.12.2.1.6 of this *ICAP Manual*;

RIP PF_{gm} = the performance factor of the RIP *g* for month *m*;

Duration Adjustment Factor$^{RIP}{}_{m}$ = the Duration Adjustment Factor for SCRs as determined for the Capability Year and month m, corresponding to the 4 hour Energy Duration Limitation in accordance with Section 4.1.1 of this *ICAP Manual*.

For SCRs assigned the performance factor for the RIP, the Installed Capacity Equivalent for each Capability Period, starting with the Capability Period that begins May 1, 2024, is equal to:

$$ICE_{gm}^{RIP} = \frac{UCAPContr_{gm}^{SCR}}{RIP\ PF_{gm} * CAF_{m}^{SCR}}$$

Where:

ICE_{gm}^{RIP} = the Installed Capacity Equivalent that Resource g is obligated to deliver in month *m*, at the direction of the NYISO;

$UCAPContr_{gm}^{SCR}$ = the Unforced Capacity sold by Resource g in month *m,* using the performance factor of the RIP, as calculated in accordance with Section 4.12.2.1.6 of this ICAP Manual;

$RIP\ PF_{gm}$ = the performance factor of the RIP g for month *m*;

CAF_{m}^{SCR} = the applicable Capacity Accreditation Factor (CAF) for an Installed Capacity Supplier with a 4-hour Energy Duration Limitation as determined for the applicable Capability Year and month *m*, in accordance with Section 7.2 of this *ICAP Manual*.

4.12.3. Minimum Payment Nomination Requirements

For each month in which a SCR supplies Unforced Capacity to the NYCA, the RIP must specify in the DRIS a Minimum Payment Nomination that will reflect the minimum guarantee price the SCR will be paid if called upon to reduce Load equal to the Installed Capacity Equivalent of the amount of Unforced Capacity it has supplied.

A Minimum Payment Nomination is specified by the RIP, in the DRIS, for each SCR Aggregation and applies to all individual SCRs within that SCR Aggregation. A SCR's Minimum Payment Nomination cannot exceed $500/MWh. This Minimum Payment Nomination, or Energy curtailment payment designation, associated with a SCR's Unforced Capacity will not be entered in the Day-Ahead Market, but instead will

serve as a strike price that the NYISO can use to prioritize which SCRs to call. Unlike a Generator or other Resource's Bid to supply Energy associated with Unforced Capacity, a SCR's Minimum Payment Nomination cannot be revised prior to Settlement in the Day-Ahead Market. A SCR's Minimum Payment Nomination is set for the entire month.

The Minimum Payment Nomination for a new SCR Aggregation ID must be specified by the RIP at the time of the SCR Aggregation ID request. The RIP may change the Minimum Payment Nomination for each auction month during the dates and times specified in the ICAP Event Calendar and DRIS Event Calendar for Strike Price Management.

SCR Minimum Payment Nominations will be used only when the NYISO Operations department determines the need to call on these SCRs in accordance with the NYISO Emergency Operations Manual. In the event the NYISO Operations department makes such a determination, the Minimum Payment Nominations placed for each SCR will allow the NYISO to call for Load reduction based on SCR zone location and price. As a result, the NYISO will be able to call less than the total pool of SCRs in the NYCA and in each NYCA zone.

As an example, the NYISO may determine that it needs a Demand Reduction response of 25 MW in Zone J. A total of 50 MW of SCRs located in Zone J is supplying Unforced Capacity. For this example, assume that each MW of SCR Capacity entered a different Minimum Payment Nomination, from $0/MWh to $500/MWh. In order to fulfill its need for 25 additional MW of reserves, the NYISO will call the 25 MW of SCRs in economic order based on their submitted Minimum Payment Nominations starting with the lowest values. See Section 4.12.7 for situations where multiple SCRs have placed the same top Minimum Payment Nomination called upon by the NYISO and the total MW offered at that price exceed the ISO's needs.

4.12.4. Performance Obligations

A SCR must be capable of making Energy available (*i.e.*, take action, in response to the NYISO direction, that causes a measurable and verifiable reduction of Load from the New York State Transmission System and/or distribution system during an event or test), for a minimum four (4) hour block (except where environmental constraints that have been previously considered and approved by the NYISO require a shorter block), in amounts that correspond to the Installed Capacity Equivalent of the amount of Unforced Capacity it has been committed to supply for each month through the NYISO's Installed Capacity Market. The obligation to reduce Load shall commence at the top of the hour after the NYISO has provided the following notices:

a. on the day before the SCR's performance may be required, the NYISO shall provide twenty-one (21) hour notice to the RIP, so long as notification is provided by 3:00 PM ET. If notice is provided to the RIP after 3:00 PM ET on the day before the SCR's performance may be required, then the NYISO shall instead provide twenty-four (24) hours' notice;

b. following the advance notice described in (a) above, on the operating day the NYISO shall provide at least two (2) hours' notice to the RIP that the SCR's performance will be required. The SCR shall reduce its Load or transfer Load to a Local Generator (as appropriate) commencing at the top of the hour immediately after the two-hour notice period has expired. In the alternative, the NYISO may specify the hour at which the SCR shall commence performance of its obligation by reducing its Load or transferring Load to a Local Generator (as appropriate), so long as the start hour specified by the NYISO is at least two hours in the future.

There shall be no relief from penalties or other obligations for failure to perform if the RIP was an Installed Capacity Supplier in any month within a Capability Period.

When requested by the Transmission Owner, the NYISO may call SCRs to reduce Load in targeted sub-load pockets within Load Zone J for the Targeted Demand Response Program (TDRP) as specified in Section 6 of the NYISO's EDRP Manual. Response to TDRP events activated by the NYISO at the request of a Transmission Owner is voluntary. Response to a TDRP event will not be used to measure performance for either the SCR or the RIP.

4.12.4.1. Average Coincident Load

The ACL is the baseline Load used by the NYISO for measuring the amount of Load reduction that a SCR enrolled in the NYISO's SCR program can provide during a specific Capability Period. An ACL is calculated by the NYISO for each SCR, except those SCRs that are eligible to enroll with a Provisional ACL, in accordance with Section 5.12.11.1.1 of the *NYISO Services Tariff*. An increase to the ACL may be reported in accordance with Section 5.12.11.1.5 of the *NYISO Services Tariff* and Section 4.12.4.3.1 of this *ICAP Manual*. A decrease to the ACL is required to be reported in accordance with Section 5.12.11.1.3 of the *NYISO Services Tariff* and Sections 4.3.3 and 4.12.4.3.2 of this ICAP Manual.

The NYISO will post to its website, and import into the DRIS, the top 40 NYCA peak Load hours for the Prior Equivalent Capability Period for each Load Zone ninety (90) days prior to the beginning of the Capability Period for which the ACL will be in effect. RIPs shall only report metered hourly Load consumed by the SCR that is supplied by the NYS Transmission System and/or the distribution system when uploading metered data into the DRIS for calculating or verifying an ACL. Any Load supported by

generation produced from a Local Generator, other behind-the-meter generator, or other supply resource located behind the SCR's meter operating during the Capability Period SCR Peak Load Zone Hours, may not be added to the metered Load values submitted. In instances where the metered Load captures both the energy provided from the NYS Transmission System and/or distribution system with the energy provided by a Local Generator, other behind-the-meter generator, or other supply resource located behind the SCR's meter, the total amount of supply from behind-the-meter sources shall be netted out of the metered Load data submitted to the NYISO for calculating or verifying an ACL.

If a RIP attempts to change the value of any hour used in the ACL calculation in a subsequent enrollment during the same Capability Period, the SCR's enrollment record will be set to a Pending status in the DRIS and must be approved by the NYISO before the SCR can be enrolled with a revised ACL.

4.12.4.2. Provisional Average Coincident Load

A RIP may enroll a SCR with a Provisional ACL in accordance with Section 5.12.11.1.2 of the *NYISO Services Tariff*. The RIP must report the meter installation date on the enrollment upload to the DRIS for each SCR being enrolled with a Provisional ACL. The meter installation date of the SCR must remain the same for the entire period in which the SCR is enrolled with a Provisional ACL with the same RIP. The RIP must maintain records sufficient to demonstrate compliance with Section 5.1 of the NYISO's EDRP Manual and to confirm the meter installation date reported in DRIS.

A demand response resource enrolled in the Prior Equivalent Capability Period in the NYISO Emergency Demand Response Program (EDRP) is ineligible to enroll in the SCR program with a Provisional ACL when being enrolled with the same RIP.

Determining Eligibility to Enroll A SCR with A Provisional ACL

Beginning with the 2014 Summer Capability Period, a RIP may verify the eligibility of a SCR to enroll with a Provisional ACL during the time frame corresponding to the SCR enrollment period as specified in the ICAP Event Calendar and DRIS Event Calendar and using the Transmission Owner Account Number of the SCR and the Provisional ACL Eligibility Import file through the DRIS. The Provisional ACL Eligibility Import will provide the RIP with one of the following results: (a) the SCR is eligible to enroll using a Provisional ACL and may be enrolled through the SCR enrollment process; (b) the SCR is ineligible to enroll using a Provisional ACL in accordance with Section 4.12.4.2.2 of this *ICAP Manual*.

All Provisional ACLs shall be subject to verification using the Verified ACL calculated in accordance with the verification process set forth in Section 5.12.11.1.2 of the *NYISO Services Tariff*. The RIP is responsible for uploading into the DRIS the interval billing meter data of the SCR for the Capability Period SCR Load

Zone Peak Hours from the Capability Period in which the SCR was enrolled with a Provisional ACL, beginning with hours that fall between the meter installation date for the SCR enrolled with a Provisional ACL through the end of the Capability Period in which the SCR was enrolled with a Provisional ACL. Any Load supported by generation produced from a Local Generator, other behind-the-meter generator, or other supply source located behind the SCR's meter operating during the applicable Capability Period SCR Peak Load Zone Hours may not be included in the SCR's metered Load values reported for the verification of its Provisional ACL.

For a resource with a Provisional ACL, if twenty (20) or more Capability Period SCR Load Zone Peak Hours occur during the period between the meter installation date and the end of the Capability Period, the NYISO shall calculate a Verified ACL from the Provisional ACL verification data as the average of the SCR's highest twenty hourly loads taken from the relevant interval metered load dataset reported to the DRIS by the RIP.

For a resource with a Provisional ACL, if there are fewer than twenty (20) applicable Capability Period SCR Load Zone Peak Hours occurring during the period between the meter installation date and the end of the Capability Period the NYISO shall set the Verified ACL equal to the Provisional ACL from the SCR enrollment.

Failure by a RIP to report required interval data for the Provisional ACL verification process in accordance with Section 5.12.11.1.2 of the *NYISO Services Tariff* shall result in the Verified ACL being set to zero for the Capability Period in which the resource was enrolled with a Provisional ACL.

The Verified ACL will be used in the calculation of the SCR's performance factor, and all other associated performance factors (*i.e.*, RIP and SCR Aggregation performance factors), and where applicable, potential deficiency charges.

In accordance with Section 5.14.2.3.1 of the *NYISO Services Tariff* SCRs enrolled with a Provisional ACL shall be subject to potential deficiency charges as a result of overstating the Provisional ACL and shall be subject to all other shortfalls and deficiency charges that may apply to the RIP under Section 5.14.2 as an Installed Capacity Supplier, including but not limited to those that may result from the invalid enrollment of the SCR, failure to timely report a Qualified Change of Status Condition, and the underperformance of the SCR in the RIP portfolio. When a single SCR's participation in the SCR program gives rise to more than one potential shortfall within the Capability Period, the NYISO shall assess to the RIP the greatest deficiency charge for the Capability Period for the single SCR. The greatest deficiency charge for the Capability Period shall be the greatest sum of the monthly deficiency charges calculated for the single SCR from among the specific shortfall types identified under Section 5.14.2.3 of the *NYISO Services Tariff* .

Pursuant to Section 5.12.12.2 of the *NYISO Services Tariff* SCRs enrolled with a Provisional ACL may also be subject to potential sanctions for failure to report the metered Load data required for verification of the Provisional ACL. The SCR may also be subject to a financial sanction for failure to timely report a Qualified Change of Status Condition, in addition to the corresponding shortfall penalty as provided in Section 5.14.2.3.3 of the *NYISO Services Tariff*.

4.12.4.2.1. Continued Use of a Provisional Average Coincident Load

A SCR enrolled with a Provisional ACL may be enrolled with a Provisional ACL in subsequent Capability Periods in accordance with Section 5.12.11.1.2 of the *NYISO Services Tariff*.

The Provisional ACL may be applicable to a new SCR for up to three (3) consecutive Capability Periods, when enrolled with the same RIP, beginning with the Capability Period in which the SCR is first enrolled with the RIP. If the SCR is enrolled by another RIP in a subsequent Capability Period and the SCR is still eligible to enroll with a Provisional ACL, the enrolling RIP is required to enter a meter installation date when enrolling the SCR.

A SCR enrolled with a Provisional ACL that reported metered Load data for twenty (20) or more of the Capability Period SCR Load Zone Peak Hours is not eligible to enroll with a Provisional ACL in the next equivalent Capability Period. When interval billing meter data from the Prior Equivalent Capability Period necessary to compute the ACL is available in the DRIS and a different RIP is enrolling the SCR in the next equivalent Capability Period the enrolling RIP may request that the NYISO use the existing interval billing meter data in accordance with Section 4.12.4.2.2 of this *ICAP Manual* for enrollment of the SCR. When no such interval billing meter data or insufficient data exists in the DRIS, the RIP enrolling the SCR in the next equivalent Capability Period is eligible to enroll the SCR with a Provisional ACL.

4.12.4.2.2. Request for SCR Meter Data: ACL Data Request Enrollment Procedures

Beginning with the 2014 Summer Capability Period, when a RIP does not have and cannot obtain the interval billing meter data from the Prior Equivalent Capability Period necessary to compute an ACL for enrollment of a SCR, the RIP may enroll the SCR using existing data in the DRIS, to the extent the necessary data is available in the DRIS, by requesting such data from the NYISO ("ACL data request enrollment"). The DRIS Provisional ACL Eligibility Import will indicate whether the ACL data necessary for enrollment of a SCR exists in the DRIS (refer to the *NYISO DRIS User's Guide* for details on this import).

Below is a summary of the process the RIP is required to take to enroll a SCR using existing data from the DRIS. A more detailed description of the ACL data request enrollment process is provided in the *NYISO DRIS User's Guide*.

- The request to use existing ACL data and the meter installation date of the SCR shall be included as part of the enrollment file upload to the DRIS upon the initial enrollment of the SCR by the RIP.
- An ACL data request enrollment that passes validations as part of the enrollment file upload to the DRIS shall be placed in a *Pending* enrollment request status, which will require further action by the RIP to be taken following the close of SCR enrollment and before the close of Aggregation Management as specified in the ICAP Event Calendar and DRIS Event Calendar.
- The RIP will be required to approve or decline the use of existing ACL data as specified in the *NYISO DRIS User's Guide*.
    - When a RIP approves, the RIP is required to enter additional enrollment values for the SCR prior to acceptance by the DRIS.
    - If the RIP declines, the SCR is not enrolled.
- All ACL data request enrollments that have not been acted on by the RIP (*i.e.*, approved or declined) by the close of Aggregation Management will be automatically declined or denied by the DRIS and the SCRs associated with the ACL data request enrollments will not be enrolled.
- A RIP that declines an ACL data request enrollment for a SCR, or an enrollment that is declined by the DRIS, may not subsequently enroll the SCR using RIP obtained interval billing meter data for the remainder of the Capability Period. The same RIP may make another request to use existing interval meter data from the DRIS during subsequent enrollment windows within the same Capability Period.

4.12.4.3. Changes to ACL

4.12.4.3.1. Increase to ACL: Incremental ACL

A RIP may increase the ACL of a SCR in accordance with Section 5.12.11.1.5 of the *NYISO Services Tariff* by reporting the qualifying increase, the Incremental ACL value, on the enrollment upload to the DRIS for the first month of enrollment with an Incremental ACL. The RIP may also report an increase to the declared value of a SCR that meets the criteria of a SCR Load Change Reporting Threshold as defined in Section 2.19 of the *NYISO Services Tariff*. The Incremental ACL must be reported for each subsequent month that the RIP reports a change to the SCR enrollment within the Capability Period. When the Incremental ACL crosses into the following Capability Period, the RIP must report the Incremental ACL value for the first month of enrollment within the following Capability Period and each subsequent month within that Capability Period that the RIP reports a change to the SCR enrollment within the Capability Period.

When a RIP enrolls a SCR using the ACL data request enrollment process set forth in Section 4.12.4.2.2 of this *ICAP Manual*, the RIP may report an Incremental ACL value for the SCR upon viewing and approving the use of existing ACL data.

All Incremental ACLs shall be subject to verification using the Verified ACL calculated in accordance with the verification process set forth in Section 5.12.11.1.5 of the *NYISO Services Tariff*. The RIP is responsible for uploading into the DRIS the required interval billing meter data of the SCR for each month's Monthly SCR Load Zone Peak Hours from the Capability Period in which the SCR was enrolled with an Incremental ACL. Such Monthly SCR Load Zone Peak Hours shall be posted to the NYISO website and imported into the DRIS during the time frame corresponding to the posting of the Capability Period SCR Load Zone Peak Hours in accordance with Section 5.12.11.1.1 of the *NYISO Services Tariff* and Section 4.12.4.1 of this *ICAP Manual*. Any Load supported by generation produced from a Local Generator, other behind-the-meter generator, or other supply source located behind the SCR's meter operating during the applicable Monthly SCR Load Zone Peak Hours may not be included in the SCR's metered Load values reported for the verification of its Incremental ACL.

Failure by a RIP to report required interval data for the Incremental ACL verification process in accordance with Section 5.12.11.1.5 of the *NYISO Services Tariff* shall result in the Verified ACL being set to zero for all months within the Capability Period in which the resource was enrolled with an Incremental ACL.

The Verified ACL will be used in the calculation of the SCR's performance factor, and all other associated performance factors (*i.e.*, RIP and SCR Aggregation performance factors), and where applicable, potential deficiency charges.

Any SCR enrolled with an Incremental ACL that was required to perform in a mandatory event hour or in the first performance test in the Capability Period in accordance with Section 4.12.4.5, may also be required to perform in the second performance test in the Capability Period in accordance with Section 5.12.11.1.5 of the *NYISO Services Tariff*. Subsequent to the first performance test in the Capability Period, the DRIS may be used by the RIP to identify SCRs required to perform in the second performance test, including SCRs enrolled with an Incremental ACL. The detailed process for identifying these SCRs is described in the *NYISO DRIS User's Guide*. When a SCR is required to demonstrate performance in either a mandatory event hour or in the first performance test, and then again in the second performance test in the Capability Period, performance from both test hours shall be considered in the calculation of the SCR's performance factor and all other associated performance factors (*i.e.*, RIP and SCR Aggregation performance factors), and where applicable, potential shortfalls and deficiency charges. Provided,

however, that with respect to the first performance test, the SCR may, in accordance with Section 4.12.4.5 of this *ICAP Manual*, demonstrate its maximum enrolled megawatt value by relying on its load reduction in a mandatory event hour in lieu of participation in the first performance test.

In accordance with Section 5.14.2.3.2 of the *NYISO Services Tariff* SCRs enrolled with an Incremental ACL shall be subject to potential shortfalls and deficiency charges as a result of overstating the Incremental ACL and shall be subject to all other shortfalls and deficiency charges that may apply to the RIP under 5.14.2 as an Installed Capacity Supplier, including but not limited to those shortfalls that may result from the invalid enrollment of the SCR, failure to timely report a Qualified Change of Status Condition, and the underperformance of the SCR in the RIP portfolio. Where a single SCR's participation in the SCR program gives rise to more than one potential shortfall within the Capability Period , the NYISO shall assess to the RIP the greatest deficiency charge for the Capability Period for the single SCR. The greatest deficiency charge for the Capability Period shall be the greatest sum of the monthly deficiency charges calculated for the single SCR from among the specific shortfall types identified under Section 5.14.2.3 of the *NYISO Services Tariff* .

Pursuant to Section 5.12.12.2 of the *NYISO Services Tariff* SCRs enrolled with an Incremental ACL may also be subject to potential sanctions for failure to report the metered Load data required for verification of the Incremental ACL and failure to report the metered Load data when the SCR is required to perform in the second performance test in the Capability Period. The SCR may also be subject to a financial sanction for failure to timely report a Qualified Change of Status Condition, in addition to the corresponding shortfall penalty as provided in Section 5.14.2.3.3 of the *NYISO Services Tariff*.

4.12.4.3.2. Decrease to ACL: SCR Change of Status

A RIP is required to report a decrease, to the ACL of a SCR, a SCR Change of Status, in accordance with Section 5.12.11.1.3.2 of the *NYISO Services Tariff* and Section 4.3.3.2 of this *ICAP Manual*.

When a RIP enrolls the SCR using the ACL data request enrollment process set forth in Section 4.12.4.2.2 of this *ICAP Manual*, the RIP must report, when applicable, a SCR Change of Status for the SCR upon viewing and approving the use of existing ACL data when such SCR Change of Status begins or is occurring on the effective date of the SCR enrollment.

Any SCR enrolled with a SCR Change of Status that was required to perform in a mandatory event hour or in the first performance test in the Capability Period in accordance with Section 4.12.4.5, may also be required to perform in the second performance test in the Capability Period in accordance with Section 5.12.11.1.3.2 of the *NYISO Services Tariff*. When a RIP reports a SCR Change of Status for a SCR after the close of enrollment for the last month of the Capability Period, the SCR will not be required to perform in

the second performance test, and shall be evaluated for a potential shortfall for SCR Change of Status; no sanction shall be applied for failure to report performance for the second performance test. Subsequent to the first performance test in the Capability Period, the DRIS may be used by the RIP to identify SCRs required to perform in the second performance test, including SCRs with a SCR Change of Status. The detailed process of identifying these SCRs is described in the *NYISO DRIS User's Guide*. When a SCR is required to demonstrate performance in either a mandatory event hour or the first performance test, and then again in the second performance test in the Capability Period, performance from both test hours shall be considered in the calculation of the SCR's performance factor and all other associated performance factors (*i.e.*, RIP and SCR Aggregation performance factors), and where applicable, potential shortfall and deficiency charges except when the SCR Change of Status is reported after the close of enrollment for the last month of the Capability Period as described above. Provided, however, that with respect to the first performance test, the SCR may, in accordance with Section 4.12.4.5 of this *ICAP Manual*, demonstrate its maximum enrolled megawatt value by relying on its load reduction in a mandatory event hour in lieu of participation in the first performance test.

Changes to ACL due to a reported SCR Change of Status as required per Section 4.3.3.2 of this *ICAP Manual* are also subject to in-period verification using actual hourly interval billing meter data for the applicable Capability Period.

In accordance with Section 5.14.2.3.3 of the *NYISO Services Tariff* a RIP that has enrolled a SCR that experiences a SCR Change of Status shall be subject to potential deficiency charges as a result of failing to timely report the SCR Change of Status and shall be subject to all other shortfalls and deficiency charges that may apply to the RIP under Section 5.14.2 as an Installed Capacity Supplier, including but not limited to those that may result from the invalid enrollment of the SCR, overstating the SCR's Provisional ACL or Incremental ACL, and the underperformance of the SCR in the RIP portfolio. Where a single SCR's participation in the SCR program gives rise to more than one potential shortfall within the Capability Period , the NYISO shall assess to the RIP the greatest deficiency charge for the Capability Period for the single SCR. The greatest deficiency charge for the Capability Period shall be the greatest sum of the monthly deficiency charges calculated for the single SCR from among the specific shortfall types identified under Section 5.14.2.3 of the *NYISO Services Tariff*.

Pursuant to Section 5.12.12.2 of the *NYISO Services Tariff* SCRs experiencing a SCR Change of Status may also be subject to a potential sanction for failure to report the metered Load data when the SCR is required to perform in the second performance test in the Capability Period. The SCR may also be subject to a

financial sanction for failure to timely report a Qualified Change of Status Condition, in addition to the corresponding shortfall penalty as provided in Section 5.14.2.3.3 of the *NYISO Services Tariff*.

4.12.4.4. Use of Generation by a SCR

Only a Local Generator available to respond to the NYISO direction and effect a real time load reduction may be enrolled as a SCR ("enrolled SCR generator"). When a Local Generator normally operates to serve its resource's Load, it may participate in the SCR program only to the extent that it can shift additional Load from the NYS Transmission System and/or distribution system onto the Local Generator at the direction of the NYISO.

In order for a RIP to enroll a SCR that uses an eligible Local Generator, any amount of generation that can reduce Load from the NYS Transmission System and/or distribution system at the direction of the NYISO that was produced by the Local Generator during the hour coincident with the NYCA or Locality peaks, upon which the Unforced Capacity Obligation of the LSE that serves that SCR is based, must be accounted for when the LSE's Unforced Capacity Obligation for the upcoming Capability Year is established. RIPs must provide this generator data annually to the NYISO on or before the date and time specified in the ICAP Event Calendar and DRIS Event Calendar so that the ISO can adjust upwards the LSE Unforced Capacity Obligation to prevent double-counting. If a RIPs fails to report this generator data for the NYCA or Locality peaks, the generation operating during the NYCA/Locality peak hours becomes ineligible to participate as SCR capacity in the upcoming Capability Year. This reporting requirement applies only when the RIP is seeking to qualify generation produced by a Local Generator as Capacity to be enrolled in the SCR program. The RIP is not required to report to the NYISO the amount of generation from the eligible Local Generator that was running on the NYCA or Locality peaks that is normally operating to serve the resource's load because this amount of generation is not eligible to qualify as Capacity that can be enrolled in the SCR program.

The NYCA/Locality Peak Hour Load Generation Form is available on the NYISO Web site. The amount of generation produced by a Local Generator during the NYCA and Locality peak hours must be timely reported on the NYCA/Locality Peak Hour Load Generation Form in accordance with NYISO Procedures in order for the enrollment of the SCR to be valid. RIPs may enroll the available capacity from a SCR's qualifying generation up to the level of the SCR's Net ACL or Provisional ACL. The NYISO will notify the Transmission Owner in the Transmission District in which the SCR generator is located to report the amount of generation supplied during the NYCA/Locality peak hours that must be accounted for in the relevant customer's Load, the LSE's Load, the Transmission District's Load forecast, and the NYCA/Locality peak Load forecast for the applicable Capability Year.

4.12.4.5. Testing of SCRs

Each SCR is required by the NYISO to demonstrate its maximum enrolled megawatt value once in every Capability Period. The NYISO will accept as evidence of such demonstration the higher of its greatest load reduction either in a mandatory event hour or in a first performance test hour, provided such performance test did not exceed one clock hour on the date and at the time specified by the NYISO. In addition to demonstrating its maximum enrolled megawatt value once in every Capability Period as described above, a SCR enrolled with an Incremental ACL or a SCR Change of Status may also be required to perform in the second performance test in the Capability Period in accordance with Sections 5.12.11.1.5 and 5.12.11.1.3.2 of the *NYISO Services Tariff*. Further detail is provided in Sections 4.12.4.3.1 and 4.12.4.3.2 of this *ICAP Manual*.

The RIP shall be eligible for Energy payments for the one-hour performance test provided the NYISO receives from the RIP all required data and that the RIP complies with other performance test-related requirements in respect of the SCR. Two Capability Period performance tests shall be conducted within each Capability Period; the first performance test within the Capability Period will be conducted on the date and at the time designated by the NYISO between August 15 and September 7 for the Summer Capability Period, and between February 15 and March 7 for the Winter Capability Period; the second Capability Period performance test shall be conducted on the date and at the time designated by the NYISO, namely, in late September or October (Summer Capability Period) or late March or April (Winter Capability Period). If there are no SCRs eligible or required to test in the second performance test, the NYISO may not conduct this second performance test.

During the Summer Capability Period, the NYISO shall conduct the performance test in hours that correspond to the time boundaries of the Capability Period SCR Load Zone Peak Hours. During the Winter Capability Period, the NYISO shall conduct the performance test in hours that include one (1) hour before and one (1) hour after the actual hours included in the Capability Period SCR Load Zone Peak Hours, for that Winter Capability Period, not to exceed the time boundaries of the Capability Period SCR Load Zone Peak Hours.

SCRs enrolled with and accepted by the NYISO on or before the date that is four business days prior to the date of the first performance test in the Capability Period (excluding the date of the first performance test) must demonstrate performance either in the first performance test or in a mandatory event hour. Such demonstration is required regardless of whether the unforced capacity from the SCR had been offered prior to the date of the first performance test. The approval date of a SCR's enrollment can be viewed as described in Section 8.1.1 of the *NYISO DRIS User's Guide.* Any SCR enrolled and accepted by the NYISO on or before the date that is four (4) business prior to the date of the first performance test (excluding the date

of the performance test) may elect to forego participation in the first performance test and, instead, utilize its greatest load reduction in a mandatory event hour for the purpose of demonstrating its maximum enrolled megawatt value for the Capability Period. SCRs that perform in a mandatory event prior to the first performance test retain the option to participate in the first performance test in the Capability Period.

For example, if the first performance test was on a Friday on the 10th day of a month, SCRs enrolled with and accepted by the NYISO on or before the Monday prior to the 10th (i.e., accepted on the 6th) must demonstrate performance either in the first performance test or in a mandatory event hour

Each SCR that is enrolled at any point in a Capability Period and was not required to demonstrate performance in the first performance test in a Capability Period shall perform in the second performance test within the Capability Period on the date and at the time specified by the NYISO regardless of whether unforced capacity from the SCR had been offered prior to the date of this second performance test. Any performance demonstrated by the SCR in a mandatory event in the Capability Period cannot be used as evidence of performance for the second performance test.

The only exception to the requirement for a SCR to demonstrate its maximum enrolled megawatt value for the Capability Period, is for a SCR that was (i) registered with and accepted by the NYISO in the last month of a Capability Period for enrollment in the following Capability Period and (ii) was not registered by another RIP for any month during the same Capability Period, in which case the SCR would not need to respond to a performance test in the month the registration was accepted but would need to demonstrate its maximum enrolled megawatt value during the following Capability Period for which the SCR is being enrolled.

If a RIP terminates the enrollment with the NYISO of a SCR prior to the date of a performance test (termed a Former Enrolled SCR), the RIP, at its election, may provide performance test data for the Former Enrolled SCR, if the Former Enrolled SCR performed in the performance test. If the Former Enrolled SCR is enrolled by a different RIP in the same Capability Period, the new RIP may provide performance test data for the SCR for the performance test the SCR is eligible to perform in based on the enrollment date with the new RIP.

If neither RIP reports performance test data nor mandatory event data, when applicable, for the SCR, a value of zero (0) will be attributed to the SCR's performance in the computation of the SCR's performance factor, SCR specific shortfalls and deficiency charges. If only one RIP reports performance test data or mandatory event data, when applicable, for the SCR, the greatest load reduction value determined for the SCR from that data will be used in all associated performance calculations; the load reduction value in the performance test shall be considered when evaluating the shortfall of RIP Portfolio Performance. If both

RIPs provide performance test data or mandatory event data, when applicable, for the SCR, the greatest load reduction value determined for the SCR from the data provided by the RIP that enrolled the SCR last in the Capability Period will be used in all performance calculations; the load reduction value in the performance test reported for the SCR by each RIP that enrolled the SCR in the Capability Period shall be considered in evaluating the shortfall of RIP portfolio performance for each RIP.

4.12.4.6. Shortfall for RIP Portfolio Performance

In accordance with Section 5.14.2.3.4 of the *NYISO Services Tariff,* each RIP's portfolio of SCRs will have its performance evaluated on a Load Zone basis for purposes of determining whether a RIP was deficient in providing the UCAP it had sold and was obligated to provide during any month in the Capability Period. Each SCR's performance in all performance tests and events will be considered when determining RIP portfolio performance. This evaluation will be based on the Installed Capacity Equivalent of the greatest load reduction of the portfolio achieved by its SCRs on a Load Zone basis during a single hour in a performance test or event called by the NYISO during the Capability Period. The determination of the total load reduction for the first performance test hour shall only include the load reduction of SCRs that demonstrate and report performance during the first performance test. Mandatory event response used in lieu of a first performance test shall not be used in the determination of the total load reduction for the first performance test. The Installed Capacity Equivalent of the greatest load reduction during a single hour is then converted to the UCAP equivalent of the greatest performance during a single hour in the Load Zone and compared to the UCAP sold for each month of the Capability Period. Within a Load Zone, if the UCAP equivalent of the greatest performance of the RIP's SCRs during a single hour is less than the total amount of UCAP sold by the RIP for a month in a Capability Period Auction or a Monthly Auction and certified prior to that month's ICAP Spot Market Auction, the UCAP sold in that month's ICAP Spot Market Auction, or the UCAP sold as a Bilateral Transaction and certified prior to that month's ICAP Spot Market Auction, the RIP did not meet its full commitment. A shortfall for the month shall be identified in UCAP terms, and the RIP will be subject to a deficiency charge, equal to one and one-half times the applicable Market-Clearing Prices of Unforced Capacity determined using the applicable ICAP Demand Curve for that ICAP Spot Market Auction times the amount of its shortfall for each month.

Within a Capability Period, for RIPs with SCRs that have reported a SCR Change of Status, in months where the SCR Change of Status is in effect, the performance of the SCR shall be based on the Net ACL. For RIPs with SCRs that have enrolled with an Incremental ACL, in months where the Incremental ACL is in effect, the performance of the SCR shall be based on the Verified ACL. For RIPs with SCRs that have enrolled with a Provisional ACL, in months where the Provisional ACL is in effect, the performance of the

SCR shall be based on the Verified ACL. For all other SCRs enrolled by the RIP, the performance of the SCR shall be based on the enrolled ACL.

When a RIP is subject to multiple deficiency charges for the same SCR for the same Capability Period, the NYISO shall assess the RIP only the greatest deficiency charge related to such SCR. The NYISO shall apply the following procedure to the determination of the RIP portfolio performance when the RIP is subject to multiple deficiency charges for the same SCR for the same months within the Capability Period. When a SCR has previously been assessed a deficiency charge for an ineligible enrollment, a Provisional ACL enrollment, Incremental ACL enrollment, or SCR Change of Status enrollment, the SCR shall be removed from both the UCAP equivalent of the greatest performance during a single hour and the UCAP sales during the determination of the RIP portfolio performance for the applicable months within the Capability Period.

The performance of capacity resources registered with and accepted by the NYISO subsequent to the first performance test conducted between August 15 and September 7(Summer Capability Period) or conducted between February 15 and March 7 (Winter Capability Period) will only apply to month(s) in (x) which the added resources participated and (y) the Capability Period for which the SCR was tested, not every month in the Capability Period.

4.12.4.7. Reporting Partial Sales

A RIP that sells less than one hundred percent (100%) and more than zero percent (0%) of its total registered MW may identify the portion of each SCR that constitutes the sale. The RIP must import any such identification into the DRIS within five (5) business days following posting of the ICAP Spot Market Auction results on or before the date and time specified in the ICAP Event Calendar and DRIS Event Calendar. Nothing in the preceding sentence shall diminish a RIP's obligation to provide data regarding SCRs within a Mitigated Capacity Zone, including pursuant to *ICAP Manual* Section 5.15.2. SCRs identified by a RIP as not sold in the month of an event will not have their performance during event hours counted toward their performance factors. If a RIP does not provide the information within the specified period, each SCR of a RIP applicable to a sale (for example, at the PTID if the PTID is identified in the sale) will be considered as sold at its full registered MW value. UCAP values will be calculated for each SCR in accordance with Sections 4.12.2.1 of this *ICAP Manual*.

4.12.4.8. Reporting SCR Performance Data

Performance for each SCR shall be reported for all hours during all mandatory SCR events and any required one-hour performance tests in which the SCR was required to reduce load in a Capability Period. The RIP must upload the file into the DRIS, on or before 5:00:00 P.M. on the seventy-fifth (75th) day after

each called event or test, on or before the date and time as specified in the ICAP Event Calendar and DRIS Event Calendar. For example, the NYISO must receive from the RIP SCRs performance data on or before 5:00:00 P.M. on June 29 pertaining to the month of April during which the SCR was called upon to reduce Load on April 15.

Each Capability Period, the NYISO will calculate performance factors for each SCR based on all of the following values from the Prior Equivalent Capability Period and the Capability Period preceding the Prior Equivalent Capability Period: (a) the best set of four (4) consecutive hours in each mandatory event of four hours or more, (b) all hours for mandatory events of less than four hours, and (c) all required one-hour performance test data. For SCRs called to perform in a mandatory event , the load reduction value used in performance factor calculations shall be selected as the higher of the greatest load reduction in any mandatory event hour or the load reduction demonstrated in the first performance test.

The RIP shall report the performances of each SCR individually directly into the DRIS using an import file formatted as specified in the *NYISO Demand Response Information System User's Guide* (available from the NYISO Web site at https://www.nyiso.com/documents/20142/3625950/DRIS_UG.pdf). The NYISO shall track each SCR's performance in accordance with the procedures contained in this Section 4.12. Performance measurements will be calculated in accordance with Sections 4.12.2.1 of this *ICAP Manual*.

If the RIP does not import performance data for any SCRs into the DRIS by 5:00:00 P.M. on the seventy-fifth (75th) day after the date of each event or test, the NYISO (a) will attribute zero performance to those Resources for purposes of satisfying the Resource's capacity obligation, determining energy payments, and calculating shortfalls and deficiency charges, and (b) may impose sanctions pursuant to the NYISO Services Tariff.

All hours, including those in excess of the hours used for performance measurement, including performance tests, will be used to determine Energy payments in accordance with Section 4.12.7, statistics for NYISO internal use, the computation of deficiency charges, and as the basis for various external reports, and for other purposes in accordance with the *NYISO Services Tariff*.

In the event that a SCR located at a retail customer was in operation (in the case of a Local Generator) or providing Load reduction (in the case of interruptible Load) in response to a SCR event or performance test, at the time of the NYCA system or Transmission District peak upon which the Minimum Unforced Capacity Requirement of the LSE serving that customer is based, the LSE's Minimum Unforced Capacity Requirement shall be increased by the amount of Load that was served or interrupted by the SCR.

4.12.4.9. Requesting a correction to SCR meter data

Each RIP must report accurate meter data for a SCR in accordance with Sections 5.12.5 and 5.12.11 of the NYISO Services Tariff and Sections 4.12.4.1, 4.12.4.2, 4.12.4.3 and 4.12.4.8 of this ICAP Manual. Meter data for each SCR must be reported on or before the date and time specified in the ICAP Event Calendar and DRIS Event Calendar. A RIP may not request correction of meter data (i) when it failed to report the required meter data by the deadline specified in the ICAP Event Calendar, (ii) when the meter data submitted was a placeholder for accurate information (*e.g.*, the RIP does not have accurate meter data at the submission deadline and submits a value of zero or some other value for all required data solely in order to meet the deadline), or (iii) to correct falsified data.

Under exceptional circumstances as set forth below, and subject to NYISO evaluation, the NYISO may accept certain corrected meter data related to the enrollment and performance of a SCR that was previously submitted to the NYISO. The NYISO will review requests to correct a SCR's meter data on a case-by-case basis, and is under no obligation to accept the meter data correction requested by the RIP. The NYISO will consider correcting the meter data identified below. No other meter data will be corrected.

- For a SCR enrolled with an ACL (but not with a Provisional ACL or an Incremental ACL): The NYISO will consider correcting the SCR's net meter data used for purposes of establishing the Net Average Coincident Load for:
  - the current Capability Period,
  - the most recently closed Capability Period,
  - the prior equivalent Capability Period of the current Capability Period, or
  - the Capability Period immediately preceding the prior equivalent of the current Capability Period.
- For a SCR enrolled with either a Provisional ACL or an Incremental ACL: The NYISO will consider correcting SCR's net meter data used for purposes of establishing the SCR's Verified ACL for:
  - the most recently closed Capability Period,
  - the prior equivalent Capability Period of the current Capability Period, or
  - the Capability Period immediately preceding the prior equivalent of the current Capability Period.
- Performance data reported for any hours during a SCR event or any required performance test in which the SCR was required to reduce load. The NYISO will consider correcting such data only from:

- the current Capability Period,
- the most recently closed Capability Period,
- the prior equivalent Capability Period of the current Capability Period, or
- the Capability Period immediately preceding the prior equivalent of the current Capability Period.

- CBL data reported for any hours during a SCR event or any required performance test in which the SCR was required to reduce load. The NYISO will, on a best efforts basis, process the received data such that Energy payments are reflected in the Final Bill Closeout period (see Sections 1.3 and 1.5 of the NYISO's Accounting and Billing Manual) for such event or performance test.

A RIP that requests a meter data correction is required to provide to the NYISO supporting documentation sufficient for NYISO to evaluate and validate the requested correction. Such information includes, but is not limited to:

- The SCR's hourly integrated meter Load data for each hour of the affected Capability Period(s) in Hour Beginning format;
- A letter from the SCR's Transmission Owner or Meter Services Entity (MSE) that read the meter confirming the accuracy of the meter data submitted by the RIP;
- A letter from a member of the RIP's executive team with the following:
  - Detailed explanation of the root cause of the inaccurate meter data for the SCR including, but not limited to, how the data error was identified by the RIP;
  - Detailed explanation of the procedures and processes the RIP has put in place to help prevent the error from recurring in the future, if any, since the error was identified; and
  - A statement attesting the accuracy of the corrected meter data.

A RIP may not request correction of the same meter data more than one time. If the NYISO receives, validates, and accepts a RIP's corrected meter data, that data can no longer be changed.

4.12.4.10. Adjustments Affecting SCR Load Zone Peak Hours

Prior to the calculation of the applicable ACL, adjustments to the metered load of a SCR shall be made for: (a) Load reductions resulting from participation in a Transmission Owner's demand response program, (b) Load reductions resulting from participation in the NYISO Day Ahead Demand Response Program (DADRP), or, (c) participation in the NYISO Demand Side Ancillary Services Program (DSASP), during any of the Capability Period or Monthly SCR Load Zone Peak Hours for the applicable Capability Period. The

adjustments shall be made, as described in each section below, to the corresponding metered load values of the SCRs as reported to the DRIS by the RIP at enrollment or when reporting Provisional ACL or Incremental ACL verification data.

Applicable adjustments to the metered load of a SCR, as described below, shall be made prior to the beginning of each Capability Period following the upload of the applicable Capability Period SCR Load Zone Peak Hours for that Capability Period and the Monthly SCR Load Zone Peak Hours for each month within that Capability Period, as specified on the DRIS and ICAP Event Calendars.

Applicable adjustments to the metered load for a SCR shall be incorporated into the applicable ACL calculation at the time of the successful import of enrollment or verification data by the RIP (refer to the *DRIS User's Guide* for details). If a modification is made to any adjusted metered load values reported by a Transmission Owner for a Transmission Owner demand response program or by the NYISO for one of NYISO's economic demand response programs, DADRP or DSASP, associated with a SCR, the applicable ACL shall be recalculated upon successful import of such changes.

Modifications may be made by the Transmission Owners and/or the NYISO to the reported adjustments when the verification data reporting period occurs for resources with a Provisional ACL or an Incremental ACL. Modifications may also be made by the Transmission Owners and/or the NYISO to the reported adjustments during each monthly enrollment period, provided the SCR was not enrolled with a Provisional ACL or Incremental ACL and the resource has not already been enrolled in an auction month within the Capability Period.

It is the responsibility of the RIP to resolve any issues regarding adjustments for participation in a Transmission Owner's demand response program with the Transmission Owner's contacts prior to the close of each monthly enrollment period or verification data reporting period. Any issues with adjustments related to NYISO economic demand response program participation must be resolved prior to the close of each monthly enrollment period or verification data reporting period by contacting the NYISO Stakeholder Services. Adjustments to the ACL for any unresolved issues between a RIP and Transmission Owner or a RIP and the NYISO will not be permitted after the monthly enrollment period or verification data reporting period closes.

4.12.4.10.1. Adjustments for Transmission Owner's Demand Response Program Affecting SCR Load Zone Peak Hours

The authorized Transmission Owners that administer demand response programs shall import into the DRIS verified Load reductions that occurred during any of the Capability Period or Monthly SCR Load Zone Peak Hours used in the calculation of the applicable ACL for the Capability Period and/or used in the

calculation of a Monthly ACL for SCRs reporting Incremental ACL verification data. The Transmission Owners shall report the Transmission Owner account number and verified Load reductions for each Capability Period or Monthly SCR Load Zone Peak Hour for each of the resources enrolled in its demand response program(s).

When the period for upload of verified Load reductions begins, Transmission Owners must provide contact information to the NYISO for the person(s) that the RIPs should contact to resolve any issues with adjustments for its demand response program data reported into the DRIS. The NYISO shall make this contact information available on the NYISO Web site at:

https://www.nyiso.com/demand-response

The NYISO shall use the Transmission Owner account number to identify the SCR for which a Transmission Owner adjustment will be made to one or more hours used in the calculation of the applicable ACL. If a SCR is enrolled in more than one Transmission Owner demand response program, or in the NYISO Day Ahead Demand Response Program, for which a Load reduction is reported for the same hour, the highest Demand Reduction reported by a Transmission Owner or verified Load reduction from a DADRP schedule, will be used to adjust that hour's metered load reported by the RIP.

4.12.4.10.2. Adjustments for NYISO Day Ahead Demand Response Program Affecting SCR Load Zone Peak Hours

The NYISO shall import into the DRIS, in accordance with Section 5.12.11.1.1 of the *NYISO Services Tariff*, verified Load reductions in response to a Day Ahead Demand Response Program ("DADRP") schedule that occurred during any of the Capability Period or Monthly SCR Load Zone Peak Hours used in the calculation of the applicable ACL for the Capability Period and/or used in the calculation of a Monthly ACL for SCRs reporting Incremental ACL verification data. If a SCR is also enrolled in one or more Transmission Owner demand response programs for which a Load reduction is reported for the same hour, the highest Load reduction occurring in either the DADRP or as reported by a Transmission Owner, will be used to adjust that hour's metered Load reported by the RIP.

4.12.4.10.3. Adjustments for NYISO Demand Side Ancillary Services Program Affecting SCR Load Zone Peak Hours

The NYISO shall import into the DRIS the DSASP Baseline MW, in accordance with Section 5.12.11.1.1 of the *NYISO Services Tariff*, for verified Load reduction of a SCR in the Demand Side Ancillary Services Program ("DSASP") during any of the Capability Period or Monthly SCR Load Zone Peak Hours used in the calculation of the applicable ACL for the Capability Period and/or used in the calculation of a Monthly ACL for SCRs reporting Incremental ACL verification data. If a RIP also reports the Load of the SCR for the same

hour, the Load of the SCR to be used in the calculation of the applicable ACL will be the higher of the DSASP Baseline MW or the Load reported by the RIP. If a SCR is also enrolled in one or more Transmission Owner demand response programs for which a Load reduction is reported for the same hour, the highest Load reduction reported by a Transmission Owner will be added to the Load of the SCR reported by the RIP and the Load of the SCR to be used in the calculation of the applicable ACL will be the higher of the DSASP Baseline MW or the sum of the Load reported by the RIP and the highest Transmission Owner Load reduction

4.12.5. NYISO Notification Procedures

The NYISO will provide twenty-one (21) hour-ahead notification if notification is provided by 3:00 PM ET, or twenty-four (24) hour notice otherwise, and two (2) hour notice, as required by this *ICAP Manual* (and described in Section 4.12.4, above), to the RIP. The former notification will be provided after 11:00 A.M. day-ahead, when the Day-Ahead Market closes. The NYISO commits not to use the day-ahead notification of potential need to operate indiscriminately but rather only when the Day-Ahead Market indicates potential serious shortages of supply for the next day in accordance with the Emergency Operations Manual. The day-ahead notice may occur on a weekend day or a holiday, as needed.

The NYISO shall provide notice no less than two (2) hours ahead of required operation or interruption, in the manner described in Section 4.12.4, above. Requested hours of operation within the two hour notification window and/or beyond the maximum 4 hours obligation will be considered voluntary for purposes of performance measurement. Notifications will normally be specified from, and to, specific clock hours, on-the-hour. Performance calculations and energy payments will normally be calculated for energy reductions for whole clock hours; i.e. from 13:00 to 14:00, 14:00 to 15:00, etc. In cases where events are initiated other than on-the-hour, energy payments will be computed for partial hours but performance calculations will only be calculated for whole hours.

RIPs shall contact their SCRs through whatever communication protocols are agreed to between the SCRs and the RIPs. Communication from the RIP to the SCR is the responsibility of the RIP. Such communication is subject to review by the NYISO. Any misrepresentation of the NYISO program in such notifications is subject to sanction by the NYISO, up to and including disqualification as a RIP.

RIPs claiming SCR Unforced Capacity shall provide the NYISO with their phone and Internet contact information that allows for notification by the NYISO at any time. RIPs shall confirm receipt of both instances of notification (day-ahead and two (2) hour) within 1 hour. Such confirmation must be

received in accordance with the instructions in the notification and must confirm the relay of proper notification by the RIPs to their SCR clients, where applicable.

4.12.6. Additional RIP Requirements

In addition to other requirements under this *ICAP Manual*, a RIP claiming Unforced Capacity from a SCR for sale into a NYISO-administered auction or for its own requirements (in the case of a RIP that is an LSE) shall fulfill the following obligations:

- Obtain authorization from each SCR to allow the RIP to act on behalf of the SCR during each Capability Period or for the term of the agreement. The authorization must specify that the RIP has authority to sell the SCR's Unforced Capacity, act as the organization of record for all financial transactions, and shall be signed and dated by an authorized representative of the SCR. Upon request, the RIP shall provide such authorization to the NYISO promptly and, if a date is specified by the NYISO in the request, such information must be received by the NYISO on or before the date. The authorization provided must clearly indicate the Transmission Owner account number of the SCR.
- The RIP must enroll the SCR with the facility's exact service address as listed on the electric utility bill it receives from the Transmission Owner or the electric service provider.
- Perform all auction functions in the NYISO's ICAP software program as required, and make certifications to the NYISO each month as provided in Section 4.7.
- Document reductions in Load with interval billing meter readings on customer Load (or with readings on the Local Generator(s) in the case of a SCR whose performance is calculated under Section 4.12.1 of this *ICAP Manual*) for the period following the NYISO notice under Section 4.12.4. See the Emergency Demand Response Program Manual for metering requirements.
- The RIP (including a Transmission Owner that is a RIP) shall retain all interval meter readings upon which it bases its certification of compliance, for a period of three (3) years.
- Upon request, the RIP is required to provide to the NYISO the documentation described below for each SCR it enrolls no later than the date specified in the request. Failure of the RIP to timely submit the requested documentation may lead to the termination of the SCR's enrollment beginning with the next auction month and continuing until the NYISO has received the requested data and verified the accuracy of the resource's enrollment data.
    - Most recent electric utility bill for the Transmission Owner account number associated with the enrolled SCR. The utility bill must clearly indicate the Transmission Owner or

electric service provider, Transmission Owner or electric service provider account number and the service address of the enrolled SCR. The electric utility bill must have been issued within two months of the calendar month in which the NYISO requested the documentation.

- Documentation from the SCR's Transmission Owner or electric service provider evidencing the Load Zone and voltage service level of the enrolled SCR. This documentation can be the SCR's electric utility bill if the bill indicates the Load Zone and voltage service level for the resource.
- Documentation demonstrating the load reduction plan for the SCR. A load reduction plan is the sequence of steps that the SCR intends to follow, and the Load reduction (in kW) expected to be achieved by each step, when called upon to reduce its Load being supplied from the NYS Transmission and/or distribution system, during a NYISO initiated event or performance test. A SCR's declared value for the auction month for which the NYISO requested the documentation must not exceed the sum of kW Load reductions expected from each step of the SCR's load reduction plan.

  A sample load reduction plan is available on the NYISO website at:

  https://www.nyiso.com/documents/20142/3664627/Sample-Load-Reduction-Plan.pdf
- If the enrolled SCR participates with a Local Generator, documentation evidencing the Local Generator's nameplate capacity. Acceptable documentation includes the Local Generator's specification sheet as provided by the manufacturer.

4.12.7. SCR Demand Response Payments

Each time a SCR is called to perform in an event or test, the NYISO shall pay the Resource's RIP an Energy payment, provided the NYISO receives in the DRIS the required data for the SCR performance and demand response energy payments in the required format, no later than 5:00:00 P.M. on the seventy-fifth (75th) day following the date of each event or test, on the date set forth on the ICAP Event Calendar and DRIS Event Calendar. Payment for SCR Load reductions are conditioned upon verification of performance for the time period requested by the NYISO. If a SCR participates in either the DADRP or DSASP and concurrently participates as a SCR, the energy payment to the RIP will be adjusted if the resource was committed in the Day-Ahead Market to perform in either the DADRP or DSASP at the same time as the SCR activation. The Customer Base Load (CBL) calculation and methodology are specified in the *NYISO*

Emergency Demand Response Manual (available from the NYISO Web site at https://www.nyiso.com/manuals-tech-bulletins-user-guides).

The RIP must use and adhere to the upload file format to report required data the NYISO will use to compute performance and energy payment calculations. The format of and specifications for the file are outlined in the *NYISO DRIS User's Guide*.

The Energy payment shall be computed for the amount of Load reduction occurring during the event measured in terms of the Energy supplied during each clock hour of its performance. If the NYISO requests performance by SCRs for more than four (4) hours, the RIP for each responding SCR shall be paid for the duration of its verified performance in the event in accordance with this *ICAP Manual*, starting with the hour specified by the NYISO as the starting time of the activation, or, in the event that the NYISO specified that the Demand Reduction begin as soon as possible, starting with the whole clock-hour in which the SCR began its response. Payment for participation in events and tests shall be computed in accordance with *NYISO Services Tariff* Section 5.12.11.1 pursuant to ISO Procedures. Payment for SCR Load reductions are conditioned upon verification of performance for the time period requested by the NYISO.

If the NYISO requests performance by SCRs in an event for four (4) hours or less, each SCR that provided a verified load reduction for the duration of the event shall be paid as if it had been activated for four (4) hours. Each SCR that reduces demand shall receive a payment consistent with the scarcity pricing rules, in accordance with this Section 4.12.7, for the duration of the NYISO request or for four (4) hours, whichever is greater, starting with the hour specified by the NYISO as the starting time of the event, or, if the NYISO specified that the Demand Reduction begin as soon as possible, starting with the hour that the SCR began to perform. Except in the case of a test, each SCR shall be paid the zonal Real- Time LBMP per MWh of Load reduced for the four-hour minimum payment period. Payment for SCR Load reductions is conditioned upon verification of performance for the time period requested by the NYISO.

In the event that a SCR's Minimum Payment Nomination total for the number of hours of performance requested by the NYISO or four (4) hours, whichever is greater, in accordance with this *ICAP Manual* exceeds the LBMP revenue that RIP receives for the SCR for the corresponding number of hours, that SCR will be eligible for a Bid Production Cost Guarantee to make up the difference.

When more than one SCR has submitted the highest Minimum Payment Nomination selected by the NYISO to perform during an event, the NYISO will specify the number of megawatts of the amount of SCRs that must perform during that event such that all such resources are selected in the same zone provided that single source resources shall be taken without being called upon for partial performance.

To continue the example listed in Section 4.12.3, each SCR that was called to perform in Zone J would be paid the greater of its Minimum Payment Nomination or the applicable LBMP per MW per hour of requested performance following verification of performance of Demand Reduction. When at least one (1) MW of SCR Capacity is needed to satisfy the total reserve requirement, the Minimum Payment Nominations submitted by these Resources may be considered when determining the LBMP.

If the Demand Side Resource is a SCR, has fewer than five (5) CBL days for a NYISO initiated event or performance test and the RIP wishes to receive energy payments, the RIP must contact NYISO Stakeholder Services, ***at least five (5) business days prior to the deadline for importing event or test performance data into DRIS***.

For event performance data received from a RIP at least ten (10) business days prior to the date of the initial settlement invoice for the month in which the event occurred (Initial Event Data Submission Date), the NYISO will, on a best efforts basis, process the received event performance data such that Energy payments for the event are reflected in the initial settlement invoice. Event data received after the Initial Event Data Submission Date referenced above shall be processed for the true-up or final invoice.

4.12.8. NYISO Verification

The NYISO retains the right to audit any records kept by the RIP, the Transmission Owner, and the SCR that are used to support the RIP's certification of compliance with the procedures set forth in this Section 4.12. The RIP shall be obligated to ensure the SCR complies and fully cooperates with any NYISO audit. Before auditing a SCR, the NYISO will first request information from the RIP that registered the SCR for the period(s) in question, and give the RIP an opportunity to provide information on behalf of the SCR.

4.13. Existing Municipally-Owned Generation

A municipal utility that owns generation in excess of its Minimum Installed Capacity Requirement, net of any Capacity provided by the New York Power Authority, may qualify to supply the excess Capacity as Unforced Capacity under the following conditions.

The municipal utility must:

- Provide the NYISO with the physical operating parameters of its generation capability;
- Operate the generation at the ISO's request; and
- Ensure that the Energy provided by the generation is deliverable to the New York State Power System. Only generation that was in service or under construction as of December 31, 1999 may qualify for the exemption from the bidding, scheduling, and notification requirements.

4.14. Unforced Capacity Deliverability Rights (UDRs) and External-to-Rest of State (ROS) Deliverability Rights (EDRs)

UDRs and EDRs are rights, as measured in megawatts, that are associated with certain new incremental transmission projects that provide a transmission interface to the NYCA or, in the case of EDRs, increase transfer capability over an existing transmission interface. External UDRs are associated with controllable interfaces between a NYCA and an External Control Area. Local UDRs are associated with controllable interfaces between a non-constrained region in the NYCA and a NYCA Locality. UDRs, when combined with Unforced Capacity either by contract or ownership, and which is deliverable to the NYCA interface with the UDR transmission facility, allows such Unforced Capacity to be treated as if it were located in the NYCA. This Unforced Capacity thereby contributes to an LSE's Locational Minimum Installed Capacity Requirement. To the extent the NYCA interface is with an External Control Area the Unforced Capacity associated with UDRs must be deliverable to the Interconnection Point.

EDRs are associated with incremental transfer capability on a new or existing Scheduled Line over an External Interface, with a terminus in Rest of State. EDRs that have obtained CRIS pursuant to Attachment S of the OATT, when combined with qualified Unforced Capacity which is located in an External Control Area either by contract or ownership, and which is deliverable to the NYCA Interface with Rest of State over which it created the incremental transfer capability, allows such Unforced Capacity to be offered into the ISO-Administered Market.

A holder of UDRs and/or EDRs may transfer them to another entity.

4.14.1. Determination and Assignment of Unforced Capacity Deliverability Rights and External-to-ROS Deliverability Rights

The amount of UDRs and EDRs assigned by the NYISO to a new incremental transmission facility, and any future adjustments there to, will be based on the transmission capability, reliability, availability of the facility, and appropriate NYSRC reliability studies. Projects seeking UDRs or EDRs must meet the NYISO Deliverability Interconnection Standard, in accordance with the rules and procedures set forth in the *NYISO OATT* Attachment S. Projects predating Class Year 2007 that hold UDRs received CRIS pursuant to the *NYISO OATT* Attachment S.

4.14.2. Requesting, Granting, Duration and Adjustment of Unforced Capacity Deliverability Rights and External-to-ROS Deliverability Rights

An incremental transmission project will be awarded UDRs or EDRs after a formal request to the NYISO that includes the pertinent technical information needed to determine such award. The NYISO may request, and the requestor and/or the designated rightsholder shall provide, additional information as necessary.

The NYISO will grant UDRs or EDRs to the requestor, or designated rights holder, quantified as the Installed Capacity Equivalent of the Unforced Capacity to be delivered to the Interconnection Point in MW, throughout its project life. The amount of UDRs or EDRs awarded to a particular project may be adjusted periodically by the NYISO. Adjustments to such an award will reflect changes in physical characteristics and availability of the associated project.

The formal request may be made any time after submittal of the studies required to support the NYISO's Interconnection process, or if the NYISO is conducting those studies, after the NYISO has completed the studies. If a formal request is received by the NYISO from a rights holder for a facility after August 1, the request for UDRs or EDRs will not be granted for the upcoming Capability Year, and the NYSRC will consider the UDRs or EDRs associated with the new facility as emergency support capability in the reliability studies conducted for the upcoming Capability Year. The holder may use timely requested UDRs or EDRs awarded for the upcoming Capability Year, as described in Section 4.14.3.

The formal request for UDRs must include the following information.

- Interconnection points (i.e., bus names and voltage levels)
- Expected in-service date
- External Control area of interconnection, if applicable
- Internal Locality(ies) of interconnection
- Normal summer/winter ratings in MW of facility, and design temperatures
- Limiting element(s)
- Average expected outage rate, and average expected repair time
- Rights holder of record at the time of the request
- The formal request must be provided to:

  New York Independent System Operator, Inc.

  Vice President, System and Resource Planning

  10 Krey Blvd.

  Rensselaer, NY 12144

The formal request for EDRs must include the following information.

- Interconnection points (i.e., bus names and voltage levels)
- Expected in-service date
- External Control area of interconnection

- Internal Zone within ROS of interconnection
- Normal summer/winter ratings in MW of facility, and design temperatures
- Line losses
- Average expected outage rate, and average expected repair time
- Rights holder of record at the time of the request
- The formal request must be provided to:

  New York Independent System Operator, Inc.

  Vice President, System and Resource Planning

  10 Krey Blvd.

  Rensselaer, NY 12144

4.14.3. Use of External Unforced Capacity Deliverability Rights and External-to-ROS Deliverability Rights

In order to use External UDRs or EDRs, an Installed Capacity Supplier must have a contract to match the number of UDRs or EDRs with Installed Capacity associated with an identifiable qualified physical Resource with a registered NYISO PTID.

When an entity combines External UDRs with acceptable Installed Capacity/Unforced Capacity, the resulting product, when supplied to an LSE will be treated as Unforced Capacity located in the NYCA Locality and will qualify as Locational Unforced Capacity, provided that the energy is deliverable to the NYCA interface with the UDR transmission facility. When an entity combines EDRs with acceptable Installed Capacity/Unforced Capacity, the resulting product, when supplied to an LSE, will be treated as Unforced Capacity located within the NYCA (but not a Locality), provided that energy is deliverable to the NYCA interface over which the EDR creates increased transfer capability.

Annually, by written notice received by the NYISO prior to August 1 or such later date as agreed to by the NYSRC, the holder of External UDRs or EDRs may return to the NYCA a quantity of the External UDRs or EDRs, up to the maximum amount awarded under Section 4.14.2, to be used in the NYSRC and NYISO reliability studies that determine the NYCA Installed Reserve Margin and the Locational Minimum Installed Capacity Requirements, respectively, for the next Capability Year. This capability will be considered emergency support capability in these reliability studies to benefit all LSEs when determining the NYCA Installed Reserve Margin and the Locational Minimum Installed Capacity Requirements.

For example, assume a transmission project is awarded 300 MW of External UDRs from ISO-NE to Long Island. Further, assume that the holder of these External UDRs is able to contract for an amount of UCAP that requires 200 MW of UDRs. By written notice received by the NYISO prior to August 1, the holder of these External UDRs may return up to 100 MW of the External UDRs for use in the reliability studies for the next Capability Year.

Each year, the entire quantity of External UDRs and EDRs awarded a transmission project under Section 4.14.2 will be available to the holder to make the determination described above.

Installed Capacity Suppliers holding rights to UDRs from an External Control Area with a dissimilar capability year shall have an opportunity to elect that the ISO determine Locational Minimum Installed Capacity Requirements without the quantity of megawatts associated with that right for the first month of a Capability Year, and as Unforced Capacity for the remaining months provided (a) such election is made prior to the first time Capacity for the corresponding quantity of megawatts held by the Installed Capacity Supplier making the election is certified in a bilateral transaction or offered in one of the NYISO's auctions, and (b) an election for all or part of the quantity of megawatts of rights to UDRs held by the Installed Capacity Supplier was not previously made. An election pursuant to this clause must be received by the NYISO no later than 5:00 PM on February 1 preceding the Capability Year. The notification shall include:

- Installed Capacity Supplier organization name;
- UDR facility name;
- Name of organization to which the NYISO granted the UDRs;
- Name of organization from which the Installed Capacity Supplier received the rights to the UDRs;
- The MW associated with the rights to the UDRs held by the Installed Capacity Supplier
- Citations to FERC orders or other regulatory approvals demonstrating the Installed Capacity Supplier's right to the UDRs, if any; and
- Contract demonstrating that the Installed Capacity Supplier has an arrangement to utilize the UDRs to import Capacity into the Locality for the month or consecutive months, consistent with the election (from which prices may be redacted).

External Installed Capacity Suppliers using External UDRs or EDRs must fulfill all External Installed Capacity Supplier requirements found in the *NYISO Services Tariff* (available from the NYISO Web site at the following URL: https://www.nyiso.com/regulatory-viewer) and NYISO Procedures, except for the requirement to acquire Import Rights as described in section 4.9.2.

4.14.4. Use of Local Unforced Capacity Deliverability Rights

In order to use Local UDRs, an Installed Capacity Supplier must have a contract to match UDRs with Unforced Capacity associated with an identifiable physical Resource either located in the non-constrained region of the NYCA or able to deliver Unforced Capacity to the non-constrained region of the NYCA.

When an entity combines Local UDRs with Unforced Capacity, the resulting product, when supplied to an LSE in the appropriate NYCA Locality, will be treated as Unforced Capacity located in the NYCA Locality and will contribute to that LSE's Locational Minimum Unforced Capacity Requirement.

Annually, upon written notice received by the NYISO prior to August 1 or such later date as agreed to by the NYSRC, the holder of Local UDRs may return to the NYCA a quantity of the Local UDRs, up to the maximum amount awarded under Section 4.14.2, to be used as transmission capability in the NYSRC and NYISO reliability studies that determine the NYCA Installed Reserve Margin and the Locational Minimum Installed Capacity Requirements, respectively, for the next Capability Year. This transmission capability will be considered free-flowing capability in these reliability studies to benefit all LSEs when determining the NYCA Installed Reserve Margin and the Locational Minimum Installed Capacity Requirements.

Each year, the entire quantity of Local UDRs awarded a transmission project under Section 4.14.2 will be available to the holder to make the determination described above.

Installed Capacity Suppliers using Local UDRs must fulfill all Installed Capacity Supplier requirements found in the *NYISO Services Tariff* and NYISO Procedures for the Unforced Capacity they seek to combine with UDRs.

4.14.5. Unforced Capacity Deliverability Rights and External-to-ROS Deliverability Rights offered in an Installed Capacity Auction

UDRs and EDRs may be offered in NYISO-administered Installed Capacity Auctions when previously combined with qualified Unforced Capacity. External Unforced Capacity combined with UDRs or EDRs and sold in an NYISO-administered Installed Capacity Auction will not require the allocation of External Installed Capacity Import Rights.

The information submission requirements for External Installed Capacity Suppliers enumerated in section 4.9.1 of this *ICAP Manual*, with the exception of Operating Data, must be received by the NYISO by the deadline as specified in the ICAP Event Calendar, and at such times as required by the NYISO and this *ICAP Manual* (e.g., DMNC test results). Operating Data must be received by the NYISO in accordance with the timing requirements found in Section 4.4.9 of this *ICAP Manual* [on or before the tenth (10th) day of the

month preceding the month in which the prospective External Installed Capacity Supplier wishes to supply Unforced Capacity to the NYCA].

4.15. Behind-the-Meter Net Generation Resource

A BTM:NG Resource ("BTM:NG"), as defined in the NYISO's Services Tariff, is a facility within a defined electrical boundary comprised of a Generator and a Host Load located at a single point identifier (PTID), where the Generator routinely serves, and is assigned to, the Host Load and has excess generation capability after serving that Host Load. The Generator of the BTM:NG Resource must be electrically located in the NYCA, have a minimum nameplate rating of 2 MW and a minimum net injection to the NYS Transmission System or distribution system of 1 MW. The Host Load of the BTM:NG Resource must also have a minimum Average Coincident Host Load ("ACHL") of 1 MW.

A facility that otherwise meets these eligibility requirements, but either (i) is an Intermittent Power resource, (ii) whose Host Load consists only of Station Power, or (iii) has made an election not to participate in the ISO-administered markets as a BTM:NG Resource pursuant to Services Tariff Section 5.12.1.12, as described below, does not qualify to be a BTM:NG Resource. BTM:NG Resources cannot simultaneously participate as a BTM:NG Resource and in any ISO and/ or Transmission Owner administered demand response or generation buy-back programs.

A BTM:NG Resource can annually, by written notice received by the NYISO prior to August 1, elect not to participate in the NYISO Administered Markets as a BTM:NG Resource. Such election must be made only if the BTM:NG Resource intends to participate in the NYISO's markets as a different resource type (e.g., as a SCR or a front-of-the-meter Generator); a BTM:NG Resource seeking to withdraw from the NYISO's markets entirely shall follow the appropriate procedures as described in Services Tariff section 5.12.1.12. A resource that makes such an election cannot participate as a BTM:NG Resource for the entire Capability Year for which it made the election, but can, however, prior to August 1 of any subsequent Capability Year; provide all required information in order to seek to re-qualify as a BTM:NG Resource. Re-qualified BTM:NG Resources will only be permitted to begin participation at the start of a Capability Year. A Resource electing not to participate as a BTM:NG Resource must send its notification to customer_registration@nyiso.com by the August 1 deadline. The notification should include the Market Participant's name, the Resource's PTID, and the resource type it seeks to become (e.g., SCR).

4.15.1. Adjusted Host Load

The Adjusted Host Load ("AHL") is the Load value used by the NYISO to calculate a BTM:NG Resource's Net-ICAP.

Pursuant to Services Tariff Section 5.12.6.1.2.2, a BTM:NG Resource's AHL is equal to the product of the ACHL (as described in Section 4.15.1.1 of this ICAP Manual) multiplied by one plus the Installed Reserve Margin applicable for that Capability Year. The NYISO will calculate each BTM:NG Resource's AHL on an annual basis. The AHL for an existing BTM:NG Resource is calculated prior to the start of the Summer Capability Period. The AHL for new BTM:NG Resources entering the market shall be calculated at the time of registration, and then annually as described for existing BTM:NG Resources.

A BTM:NG Resource that makes an election not to participate in the ISO-administered markets as a BTM:NG Resource pursuant to Services Tariff section 5.12.1.12, and seeks, in a subsequent Capability Year, to re-register as a BTM:NG Resource shall have its AHL calculated prior to the start of the Summer Capability Period in which returns as a BTM:NG Resource.

AHL = ACHL * (1 + IRM)

4.15.1.1. Average Coincident Host Load

Pursuant to Services Tariff section 5.12.6.1.2.1, the ISO shall compute each BTM:NG Resource's ACHL for each Capability Year using the peak proxy Load value adjusted by the weather normalization factor ("WNF") and regional Load growth factor ("RLGF").

The peak proxy Load value is the simple average of the top twenty (20) hourly Host Load values for a BTM:NG Resource taken from the BTM:NG Resource peak Load Hours.

The WNF and RLGF used in the calculation are those factors calculated pursuant to Section 2 of the NYISO's Load Forecasting Manual in relation to developing the NYCA Minimum ICAP Requirement. The NYISO will import into DRIS the applicable RLGF and WNF for each Capability Year.

ACHL = Peak Proxy Load Value * (1 + WNF) * (1 + RLGF)

If a BTM:NG Resource's ACHL is below 1 MW, the resource is not eligible to participate in the NYISO's markets as a BTM:NG Resource until its ACHL is calculated to be at least 1 MW (such calculation done annually prior to the start of the Capability Year).

4.15.1.2. BTM:NG Resource Peak Load Hours

The BTM:NG Resource peak Load hours for a Capability Year are the top forty (40) NYCA peak Load hours that occurred in the prior Summer Capability Period and the Winter Capability Period immediately

prior to that. For instance, the 2017-18 Capability Year BTM:NG peak Load hours are the top forty (40) NYCA peak Load hours in the Summer 2016 Capability Period and Winter 2015-2016 Capability Period. The BTM:NG Resource peak Load hours identified by the NYISO are used to determine the peak proxy Load value of BTM:NG Resources. The NYISO will post the BTM:NG Resource peak Load hours on its website, and import them into the DRIS, at least ninety (90) days prior to the beginning of each Capability Year.

4.15.1.3. Peak Proxy Load Data

Each BTM:NG Resource must provide to the NYISO data sufficient to calculate its peak proxy Load value (i.e., data sufficient to determine the simple average of the Resource's top 20 hourly Host Loads coincident with the BTM:NG Resource peak Load hours). If a BTM:NG Resource does not have metered Host Load data for each of the BTM:NG Resource peak Load hours, the NYISO will calculate the Resource's peak proxy Load value as described in Revenue Metering Requirements Manual section 3.2 (i.e., based on "net" facility revenue meter and gross generation meter data).

If a BTM:NG Resource does not have telemetered data for each of the BTM:NG Resource peak Load hours it must submit, and the NYISO must receive, the data to determine the peak proxy Load value at least forty-five (45) days prior to the start of the Capability Year (or, for BTM:NG Resources performing their initial registration, at least forty-five (45) days prior to the first auction month in which the Resource intends to participate). BTM:NG Resources may submit the required data by completing the form "BTM:NG - Peak Proxy Load Data" posted on the NYISO website under https://www.nyiso.com/behind-the-meter and then sending to scr_registration@nyiso.com.

The peak proxy Load data submitted to the NYISO, must accurately reflect the Load consumed by the host facility and routinely served by the BTM:NG Resource.

The meters used to measure BTM:NG Resource peak proxy Load data must be accepted by a Meter Authority ("MA") (for the purposes of this Section 4.15 of the ICAP Manual, a "Meter Authority" is any entity that meets the requirements of Section 4.3 of the Revenue Metering Requirements Manual). The metering requirements for BTM:NG Resources are described in Section 3.2 of the NYISO's Revenue Metering Requirements Manual. It is the responsibility of the Market Participant to ensure the accuracy of the meter data submitted to the NYISO.

4.15.1.4. Forecasted Peak Proxy Load Data

A facility that meets the criteria to be, and has not previously been, a BTM:NG Resource, and that does not have the data to determine peak proxy Load value, must submit and the NYISO must receive, forecasted peak proxy Load data which shall be used to calculate an estimated ACHL. The BTM:NG

Resource shall base its forecast on actual or calculated Host Load data, or if not available, billing data or other business data of the Host Load. It is the responsibility of the Market Participant to support both its lack of sufficient meter data and the values used in its forecast. Acceptable evidence of lack of sufficient metering includes the BTM:NG Resource's meter installation date (provided by the MA) of the BTM:NG Resource meter(s).

If the Market Participant is required to submit forecasted peak proxy Load data, the NYISO must receive the forecasted peak proxy Load data at least forty-five (45) days prior to the start of the Capability Year (or, for BTM:NG Resources performing their initial registration, at least forty-five (45) days prior to the first auction month in which the Resource intends to participate). Peak proxy Load data must be submitted by completing the form "BTM:NG - Forecasted Peak Proxy Load Data" posted on the NYISO website under https://www.nyiso.com/behind-the-meter and then sending to scr_registration@nyiso.com .

The NYISO will review the information and reserves the right to approve, deny or otherwise modify, in consultation with the Market Participant, the forecasted peak proxy Load value. If, after reviewing the data provided by the BTM:NG Resource, the NYISO believes the data to be inaccurate it may seek verification of data from the Resource's MA. An estimated ACHL can only be applicable to a BTM:NG Resource until actual data to determine peak proxy Load value becomes available, but in any event no longer than three (3) consecutive Capability Years beginning with the Capability Year it is first an Installed Capacity Supplier.

4.15.1.5. Adjustments for the BTM:NG Resource's Station Power

The peak proxy Load data of a BTM:NG Resource may be adjusted, as described in the two situations addressed below, if the Station Power consumed by the Generator serving the BTM:NG Resource is separately metered from all other Load of the BTM:NG Resource pursuant to Services Tariff sections 2.19 and 5.12.6.1.1 and section 4.2.3 of this ICAP Manual:

- If the separately metered Station Power Load is also included in the hourly Host Load data submitted to the NYISO for the purposes of establishing the BTM:NG Resource's peak proxy Load value, and the BTM:NG Resource elects to perform a DMNC test, then the separately metered Station Power meter data will be subtracted from the hourly Host Load data used to calculate the peak proxy Load value;
- If the separately metered Station Power Load is not included in the hourly Host Load data submitted to the NYISO for the purposes of establishing the BTM:NG Resource's peak proxy Load value, and the BTM:NG Resource elects to perform a DMGC test, then the separately

metered Station Power meter data will be added to the hourly Host Load data used to calculate the peak proxy Load value.

If a BTM:NG Resource's Station Power is not separately metered from all other Load of the Resource, the Station Power will be included in the hourly Host Load when determining the peak proxy Load value.

If the BTM:NG Resource's Station Power is reported to the NYISO in accordance with Section 6.4 of NYISO's Accounting and Billing Manual, the meter data for the Station Power reported by the MAs may be available in the NYISO's settlements system, and will be used to calculate the peak proxy Load value. Market Participants are solely responsible for ensuring that the correct meter data is used for its BTM:NG Resources. Market Participants are required to notify the NYISO at the earliest practicable time if there are meter data errors. The Market Participant should work with the relevant Meter Authority to resolve meter data inaccuracies.

If the BTM:NG Resource's Station Power is not provided to the NYISO's settlements system, but Station Power Load is separately metered and verifiable by the MA, the Market Participant may report the meter data for the Station Power to the NYISO by completing the form "BTM:NG – Station Power Meter Data" posted on the NYISO website under https://www.nyiso.com/behind-the-meter and emailing the completed form to scr_registration@nyiso.com at least forty-five (45) days prior to the start of the Capability Year (or, for BTM:NG Resources performing their initial registration, at least forty-five (45) days prior to the first auction month in which the Resource intends to participate). If, after reviewing the data provided by the BTM:NG Resource, the NYISO believes the data to be inaccurate, it may seek verification of data from the Resource's MA. After verifying the Station Power Load data, the NYISO reserves the right to approve, or deny the data, based on the results of the NYISO's verification and after consulting with the Market Participant.

4.15.1.6. NYISO Verification

The NYISO will review all of the data used to calculate a BTM:NG Resource's AHL and may seek verification of the data from the BTM:NG Resource and/or the Resource's MA if the NYISO believes the data to be inaccurate. The documentation that may be requested from the Market Participant and/or the MA to validate data includes, but is not limited to, the electric utility bill of the BTM:NG Resource, one-line diagrams clearly indicating the meter configuration of the BTM:NG Resource, information about the Resource's participation in other retail or wholesale programs, and Meter Authority confirmation of the meter data submitted to the NYISO for the BTM:NG Resource. The Market Participant must provide the documentation to the NYISO within the deadline provided in the NYISO's request. The NYISO reserves the right to approve, deny, or modify the AHL data after reviewing all of the information submitted by the

Market Participant and its MA, and after consulting with the Market Participant. Failure of the Market Participant to provide sufficient documentation will lead to the BTM:NG Resource being unable to participate as an ICAP Supplier until sufficient information is provided.

4.15.2. Net-ICAP Calculation for BTM:NG Resources

Net-ICAP is the Installed Capacity of a BTM:NG Resource that is qualified to participate in the NYISO's Capacity Market. A BTM:NG Resource's Net-ICAP consists of a generator component (i.e., its Adj. DMGC/DMNC) and a load component (i.e., its AHL). If the BTM:NG Resource's Load is greater than its Generation its Net-ICAP value shall be set to zero. Net-ICAP will be considered the equivalent of ICAP for BTM:NG Resources.

Net-ICAP is calculated as follows:

Net-ICAP = Adj. $DMGC_m$ – AHL

4.15.2.1. Adjusted DMGC

The Adjusted DMGC of a BTM:NG Resource shall be the least of: (i) its DMGC for the Capability Period as defined in section 4.2 of the ICAP Manual; (ii) its AHL plus its applicable Injection Limit; and (iii) its AHL plus the number of MW of CRIS it has obtained, as determined in accordance with OATT Section 25 (OATT Attachment S) and Section 5.12.6.1.1 of the Services Tariff.

Adjusted $DMGC_m$ is calculated as follows:

$$\text{Adj. } DMGC_m = \text{Min}(DMGC_m, AHL_m + \text{Injection Limit}, AHL_m + CRIS_{CP})$$

Where:

Adj. $DMGC_m$: the BTM:NG Resource's maximum generation available to the Capacity Market in month m;

$DMGC_m$: the maximum generation output of the Generator as measured by a DMGC or DMNC test, as applicable, for month m;

AHL_m: the Adjusted Host Load for the BTM:NG Resource for month m;

Injection Limit: the maximum number of MW that a BTM:NG Resource is permitted to inject into the grid;

$CRIS_{CP}$: the amount of Capacity Resource Interconnection Service the BTM:NG Resource has been awarded.

4.15.3. Net-UCAP Calculation

The amount of Unforced Capacity that each BTM:NG Resource is authorized to supply in the NYCA is its Net-UCAP. Net-UCAP is the lesser of (i) the ISO's calculation of the Adjusted DMGC for the Generator of the BTM:NG Resource multiplied by the product of the Resource's assigned Capacity Accreditation Factor and one minus its EFORd, and then decreased by its AHL multiplied by the NYCA Translation Factor as defined in section 2.5 of this ICAP Manual, and (ii) the Resource's Net-ICAP. If a BTM:NG Resource's Net-UCAP is less than zero, it will be set to zero by the NYISO. The BTM:NG Resource will remain qualified to participate as an ICAP Supplier, and can offer available Net-UCAP once it returns to a positive value.

Net-UCAP is calculated as follows:

$$\text{Net} - \text{UCAP} = \text{Max}\ (\text{Min}\ ([\text{Gen. UCAP}]\ -\ [\text{Load UCAP}], \text{Net} - \text{ICAP}), 0)\text{-}$$

Where:

Gen. UCAP : the UCAP provided by the Generator of a BTM:NG Resource. It is calculated as follows;

$$\text{Gen. UCAP} = \text{Adj. DMGC}_{\text{m}}\ *\ (1 - \text{EFORd}) * CAF_m$$

Where:

Adj. DMGC_{m} = the BTM:NG Resource's maximum generation available to the Capacity Market in month m.

EFORd = the effective forced outage rate on demand

CAF_m = the BTM:NG Resource's assigned Capacity Accreditation Factor (CAF) for month *m*, in accordance with Section 7.2 of this *ICAP Manual*.

Load UCAP = the UCAP requirement needed to serve the Load of a BTM:NG Resource. It is calculated as follows:

$$\text{Load UCAP} = \text{AHL}_{\text{m}} * (1 - \text{NYCA TF}_{\text{CP}})$$

Where:

AHL_m = the Adjusted Host Load for Behind-the-Meter Net Generation for month m

NYCA TF_{CP} = the NYCA Translation factor for the Capability Period